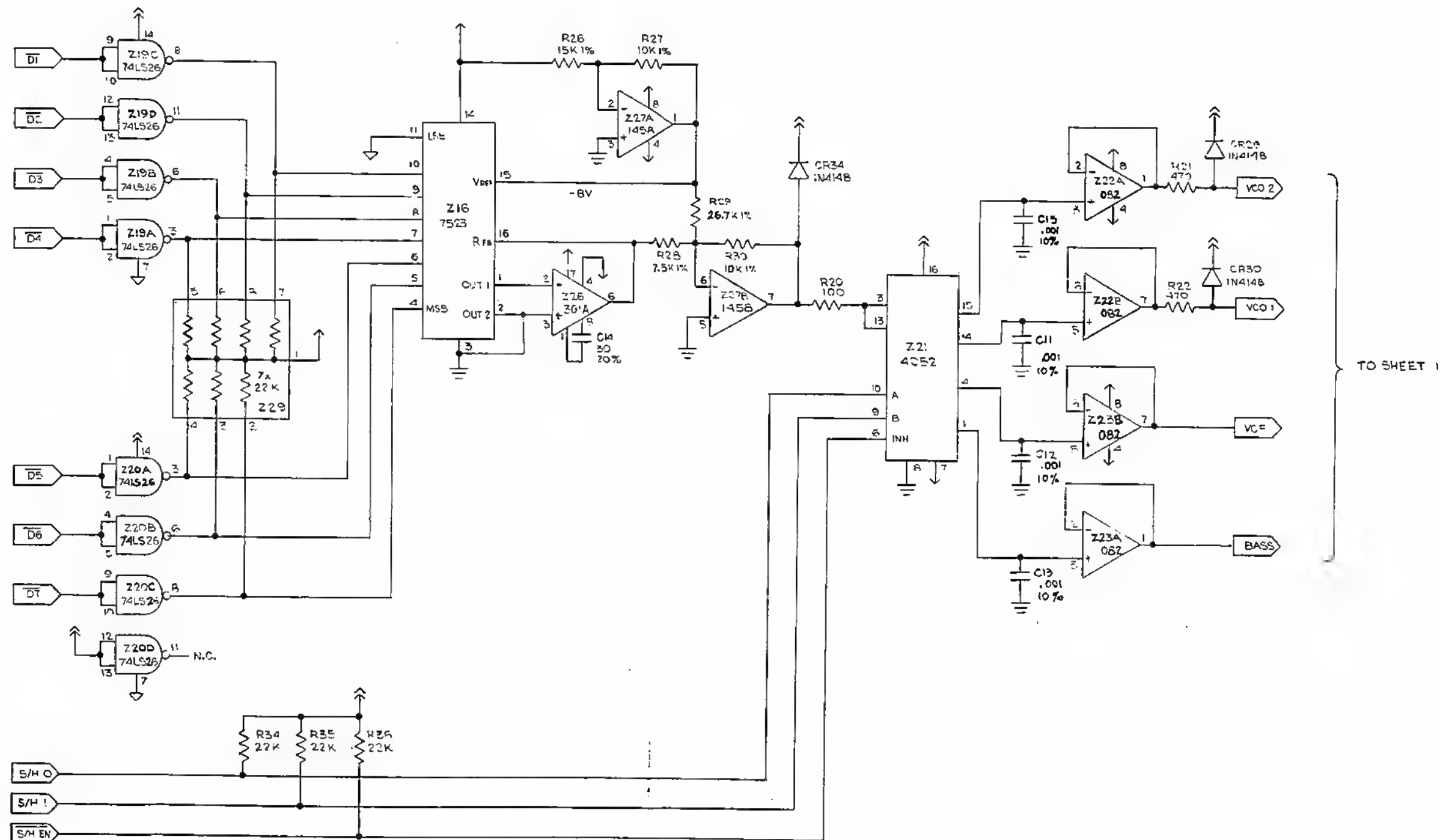


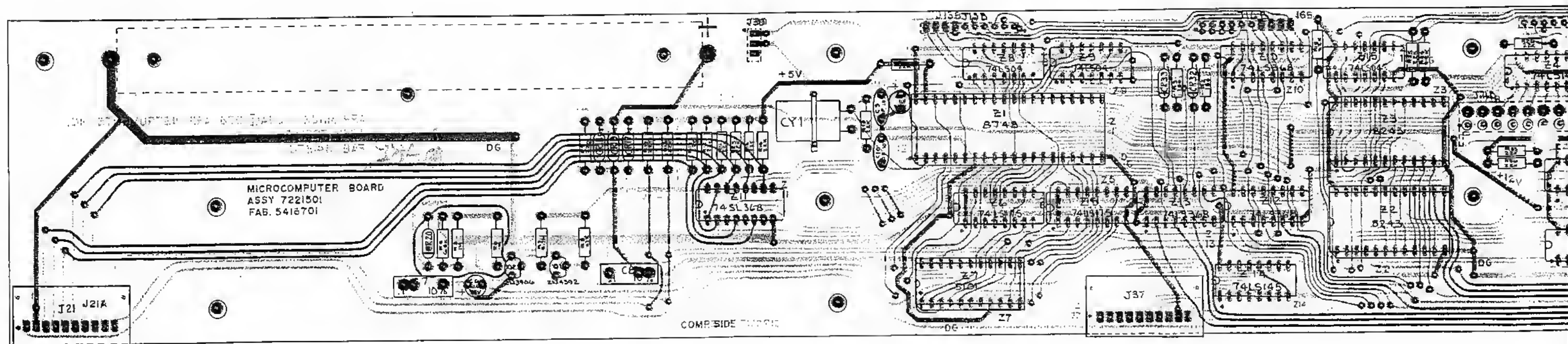


FROM SHEET 1

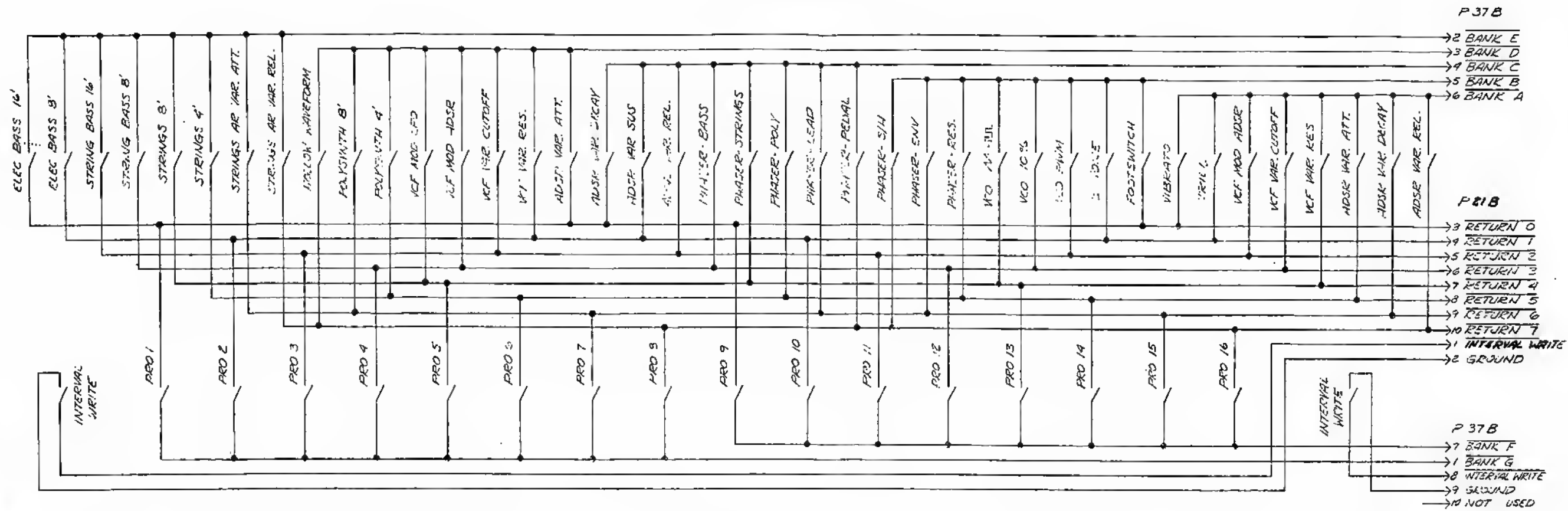


ARP INSTRUMENTS, INC.

SCHEMATIC, MICROCOMPUTER BOARD
QUADRA, Model 2460
Sheet 2 of 2



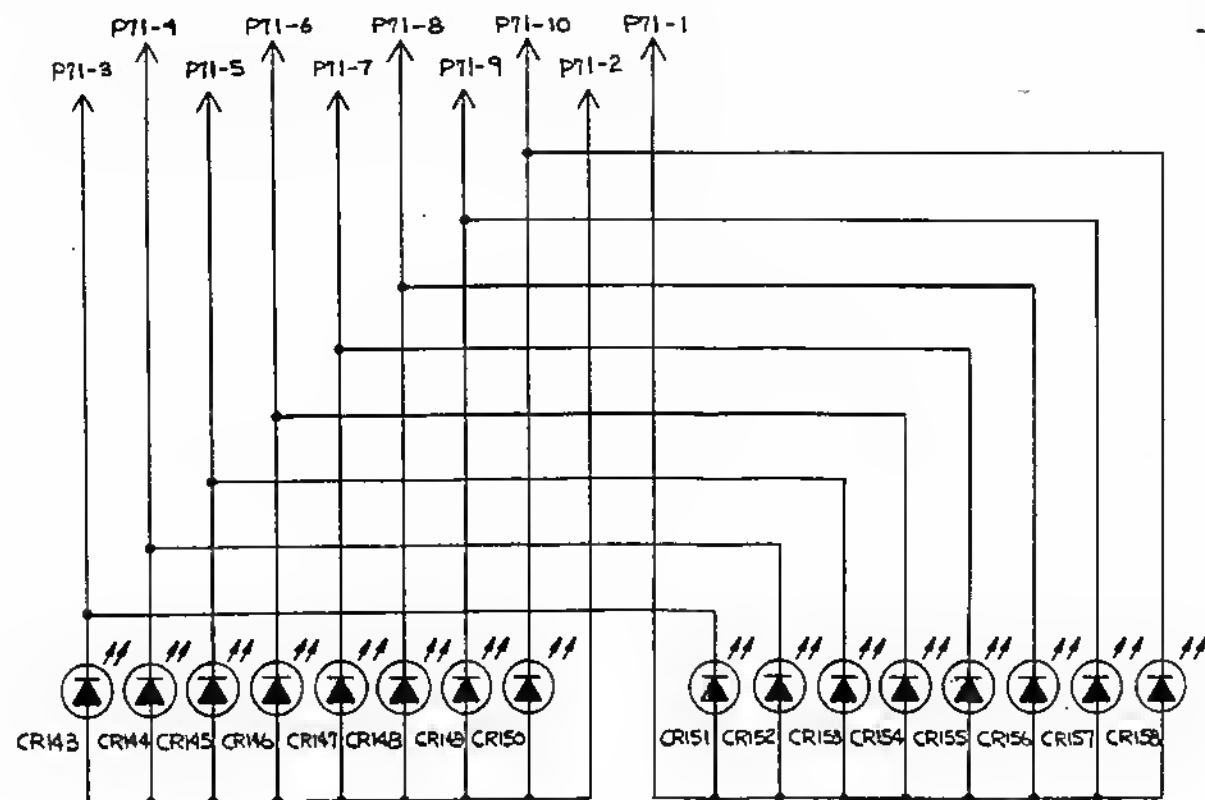
SWITCH ARRAY



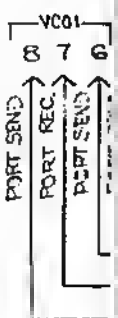
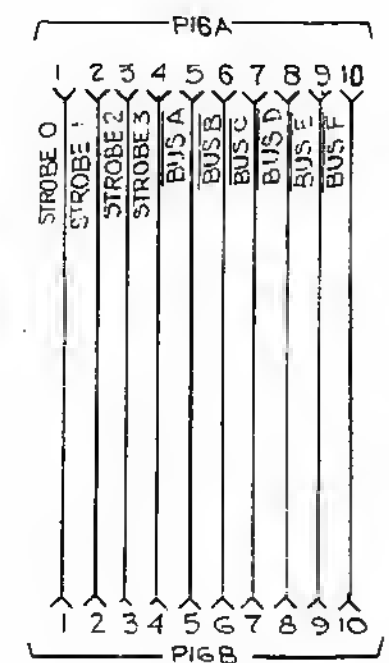
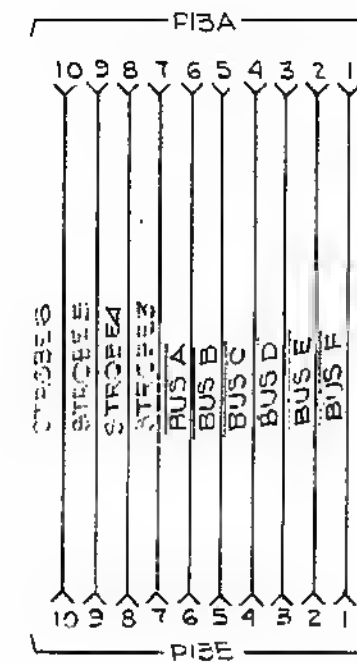
LATCH CODE - POLYSYNTH FUNCTION	DATA BUS	RE
ELEC BASS 16'	C	6
ELEC BASS 8'	D	6
STRING BASS 16'	E	6
STRING BASS 8'	F	6
STRINGS 8'	A	5
STRINGS 4'	B	5
STRING AR VAR ATT	C	5
STRING AR VAR REL	D	5
HOLLOW WAVEFORM	F	4
POLYSYNTH 8'	E	4
POLYSYNTH 4'	D	4
VCF MOD LFO	C	4
VCF MOD ADSR	B	4
VCF VAR CUTOFF	A	4
VCF VAR RES	F	5
ADJR VAR ATT	E	5
ADJR VAR DELAY	A	3
ADJR VAR SUS	B	3
ADJR VAR REL	C	3

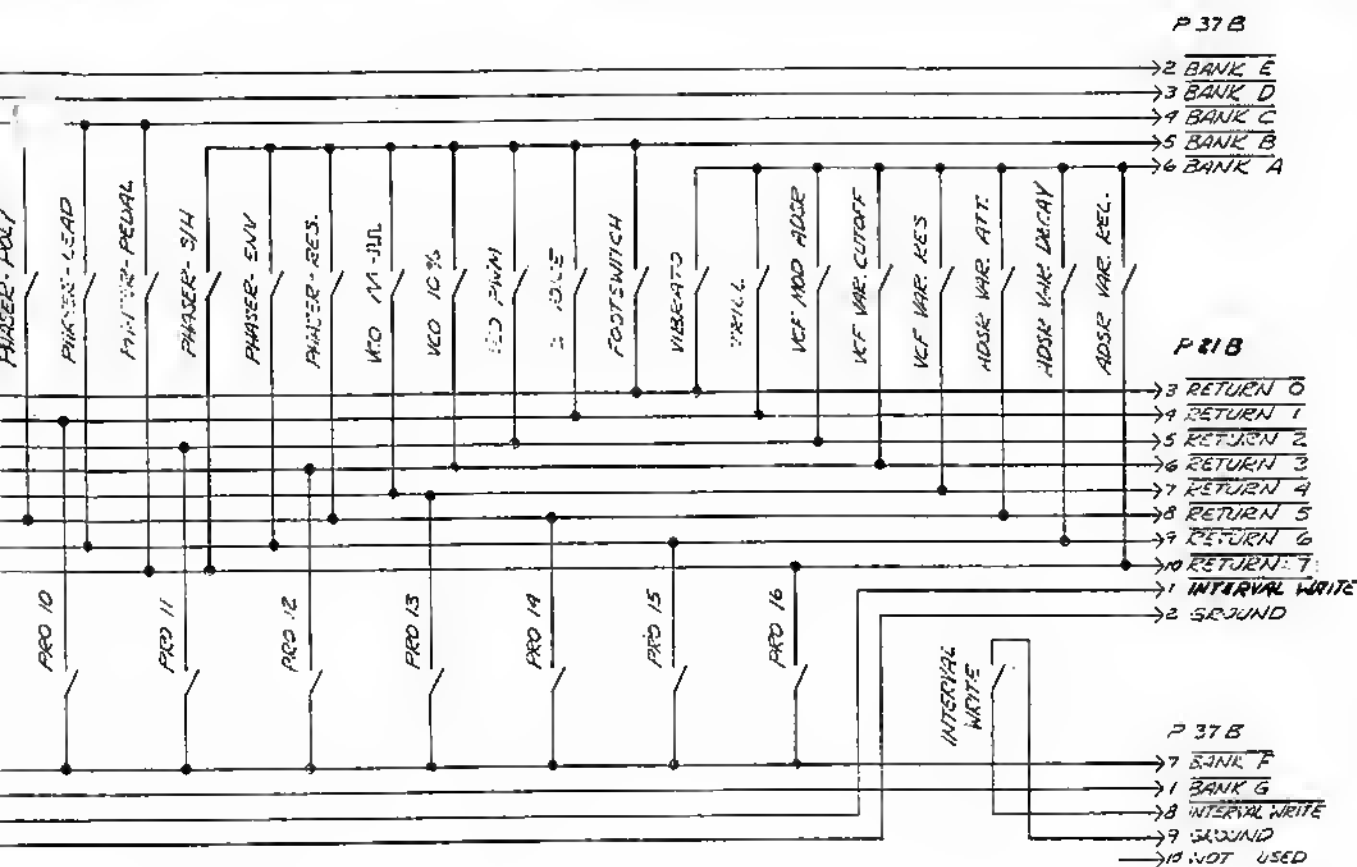
NOTE:

1. UNLESS OTHERWISE SPECIFIED:
ALL DIODES ARE 1N510.



ARP INSTRUMENTS, INC.
SCHEMATIC, LED BOARD
QUADRA, Model 2460





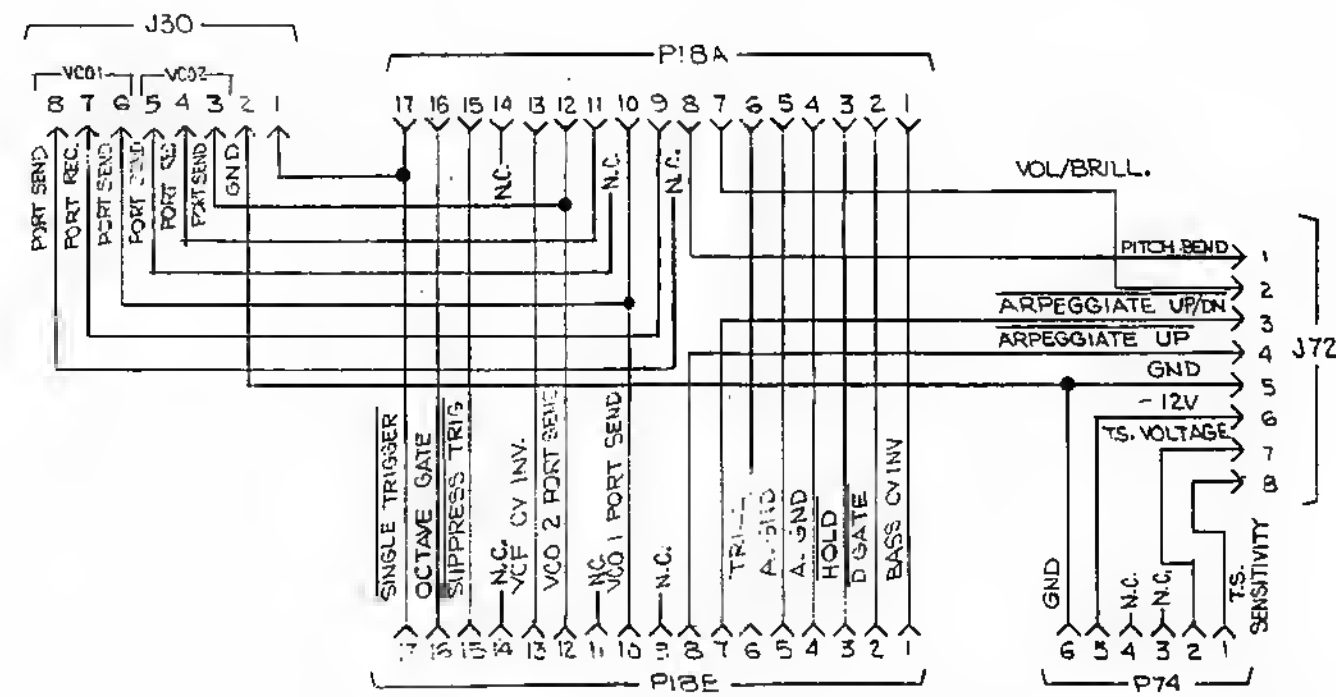
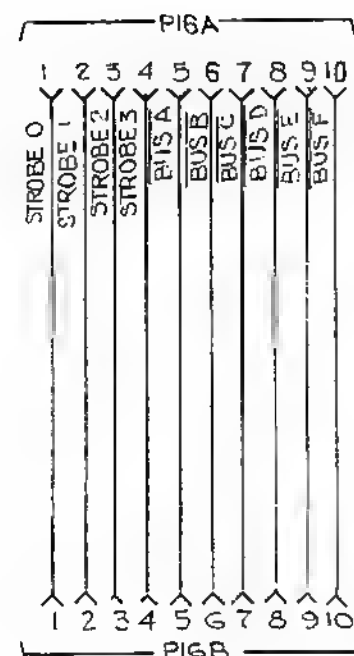
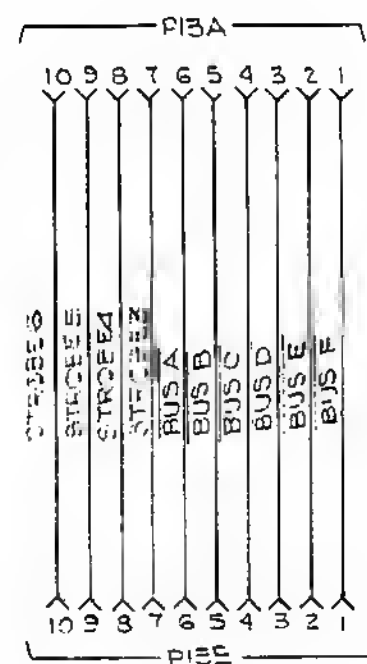
LATCH CODE - POLYSYNTH FUNCTION	DATA BUS	STROBE
ELEC BASS 16'	C	6
ELEC BASS 8'	D	6
STRING BASS 16'	E	6
STRING BASS 8'	F	5
STRINGS 8'	A	5
STRINGS 4'	B	5
STRING AR VAR ATT	C	5
STRING AR VAR REL	D	5
HOLLOW WAVEFORM	F	4
POLYSYNTH 8'	E	4
POLYSYNTH 4'	D	4
VCF MOD LFO	C	4
VCF MOD ADSR	B	4
VCF VAR CUTOFF	A	4
VCF VAR RES	F	5
ADSR VAR ATT	E	5
ADSR VAR DELAY	A	3
ADSR VAR SUS	B	3
ADSR VAR REL	C	3

LATCH CODE - PHASER FUNCTION	DATA BUS	STROBE
PHASER-BASS	D	3
PHASER-STRINGS	E	3
PHASER-POLY	F	3
PHASER-LEAD	A	2
PHASER-PEDAL	B	2
PHASER-S/H	D	1
PHASER-ENV	C	1
PHASER-RES	B	1

LATCH CODE - LEAD FUNCTION	DATA BUS	STROBE
VCO 11	A	1
VCO 10%	F	2
VCO PWM	E	2
2 VOICE	D	2
FOOTSWITCH	C	2
VIBRATO	E	1
TRILL	F	1
VCF MOD ADSR	A	0
VCF VAR CUTOFF	B	0
VCF VAR RES	C	0
ADSR VAR ATT	D	0
ADSR VAR DECAY	E	0
ADSR VAR REL	F	0

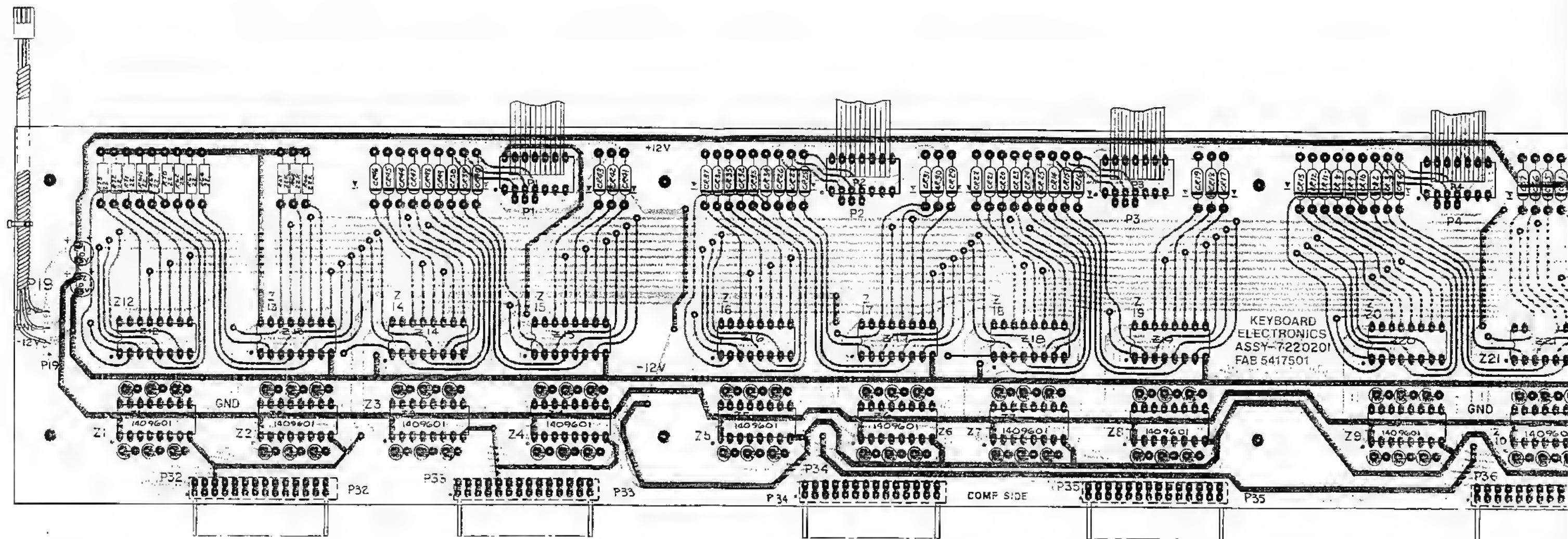
ARP INSTRUMENTS, INC.
SCHEMATIC, TOUCH SWITCH PANEL
QUADRA, Model 2460

SS OTHERWISE SPECIFIED:
DIODES ARE FLV510.



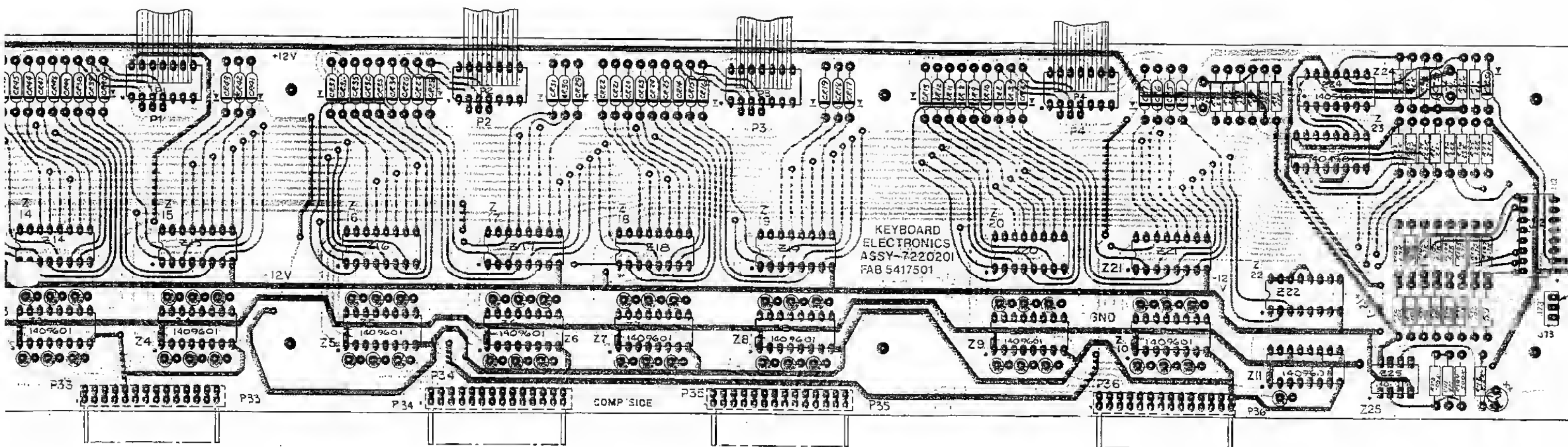
ARP INSTRUMENTS, INC.
SCHEMATIC, LED BOARD
QUADRA, Model 2460

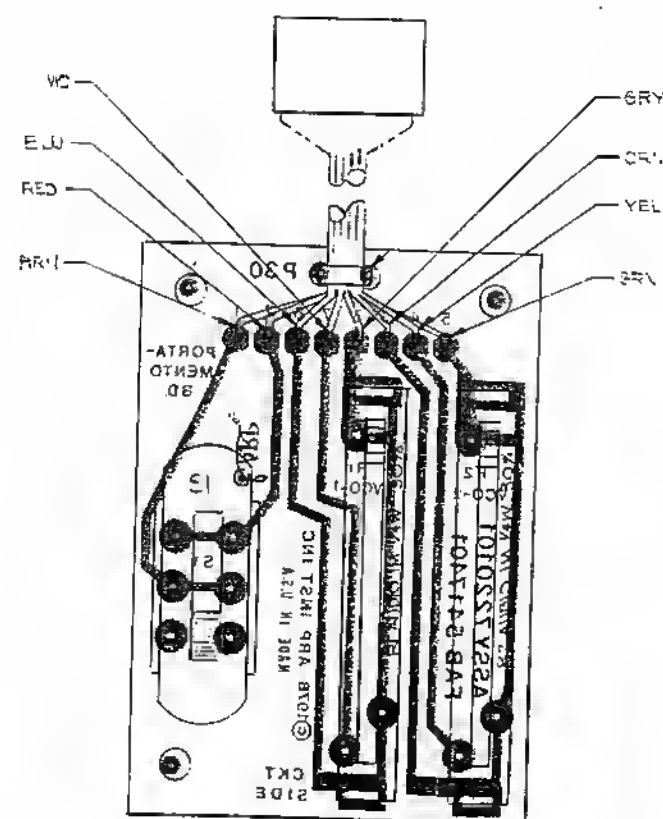
ARP INSTRUMENTS, INC.
SCHEMATIC, INTERCONNECT BOARD
QUADRA, Model 2460



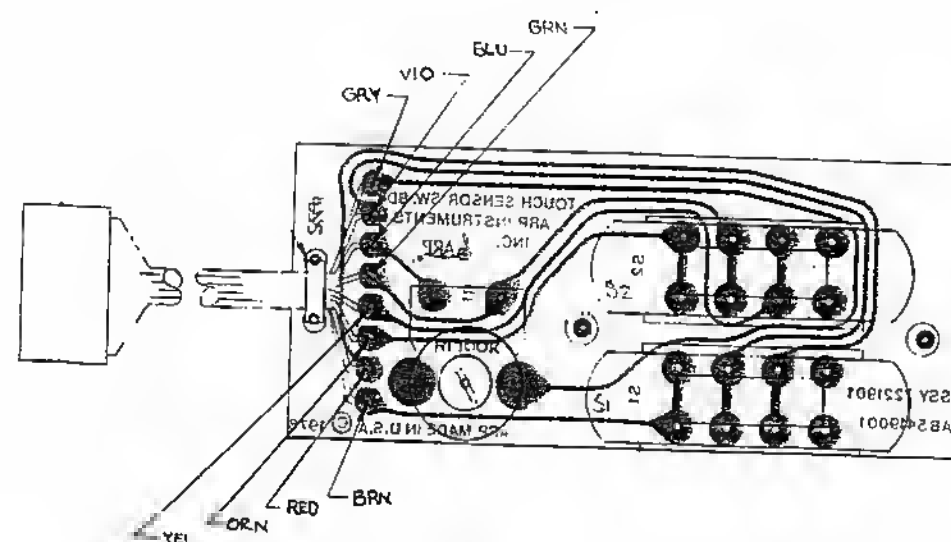
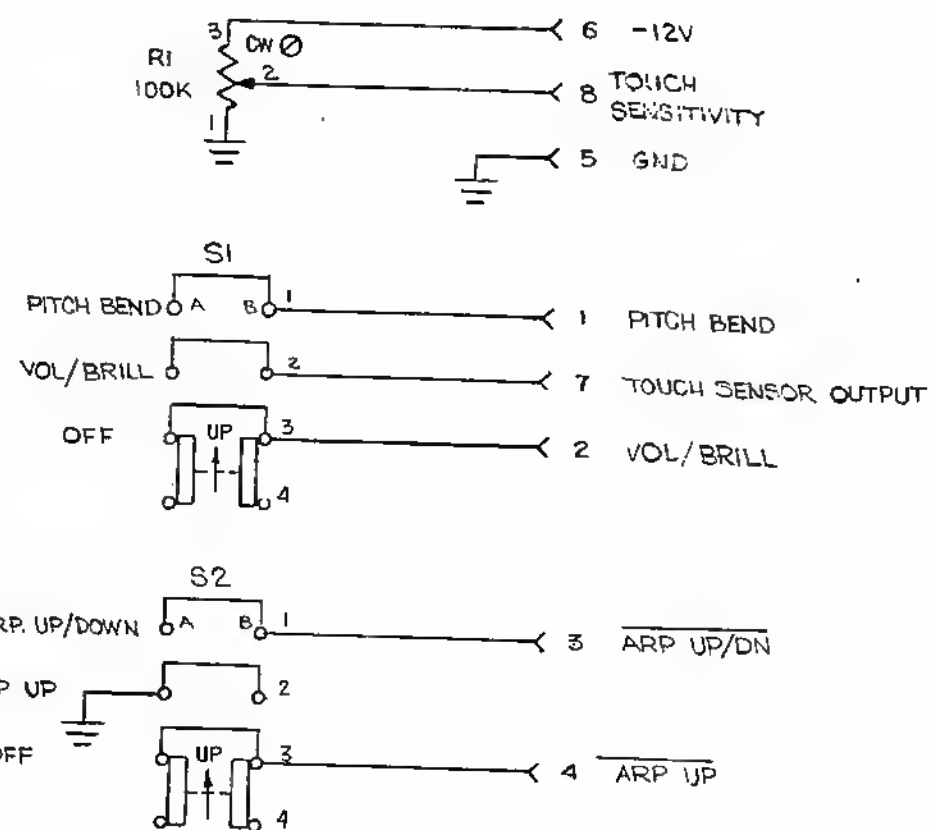
NOTES:

1. UNLESS OTHERWISE SPECIFIED:
RESISTOR VALUES ARE IN OHMS, $\frac{1}{4}W$ 5%.
CAPACITOR VALUES μf (P= PICO FARADS).
DIODES ARE 1N4148.





P72



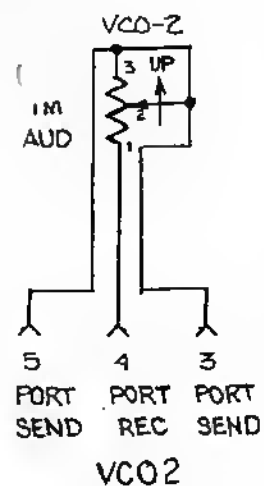
```

BASS CV OUT 6
BASS CV IN 5
GND 4
GND 3
BASS GATE OUT 2
BASS GATE IN 1
GND 0
GND -1
LEAD TRIG OUT 00
LEAD TRIG IN -1

```

LEAD GATE OUT 5 ←
 LEAD GATE IN 11 ←
 GND 4 ←
 VCO2 CV OUT 6 ←
 VCO1 CV OUT 13 ←
 VCO 1#2 CV IN ←

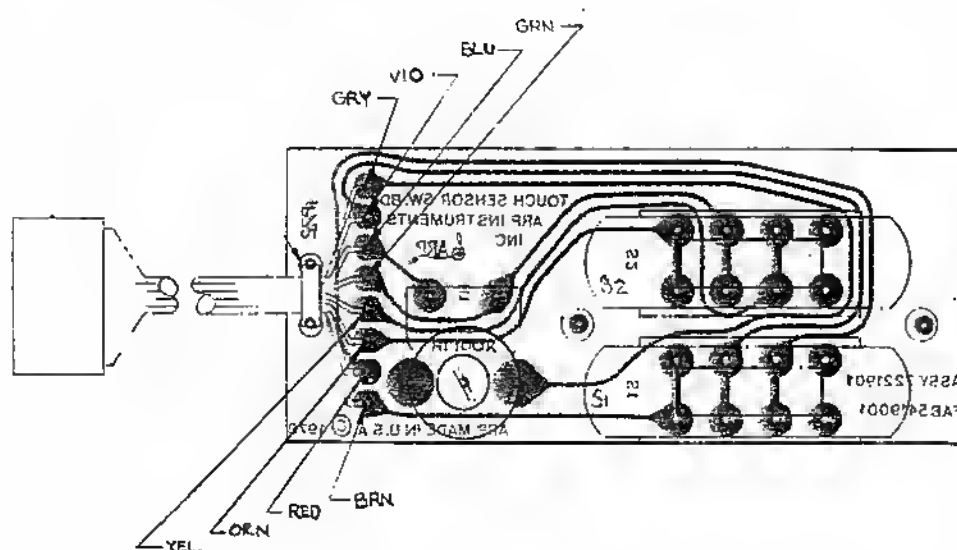
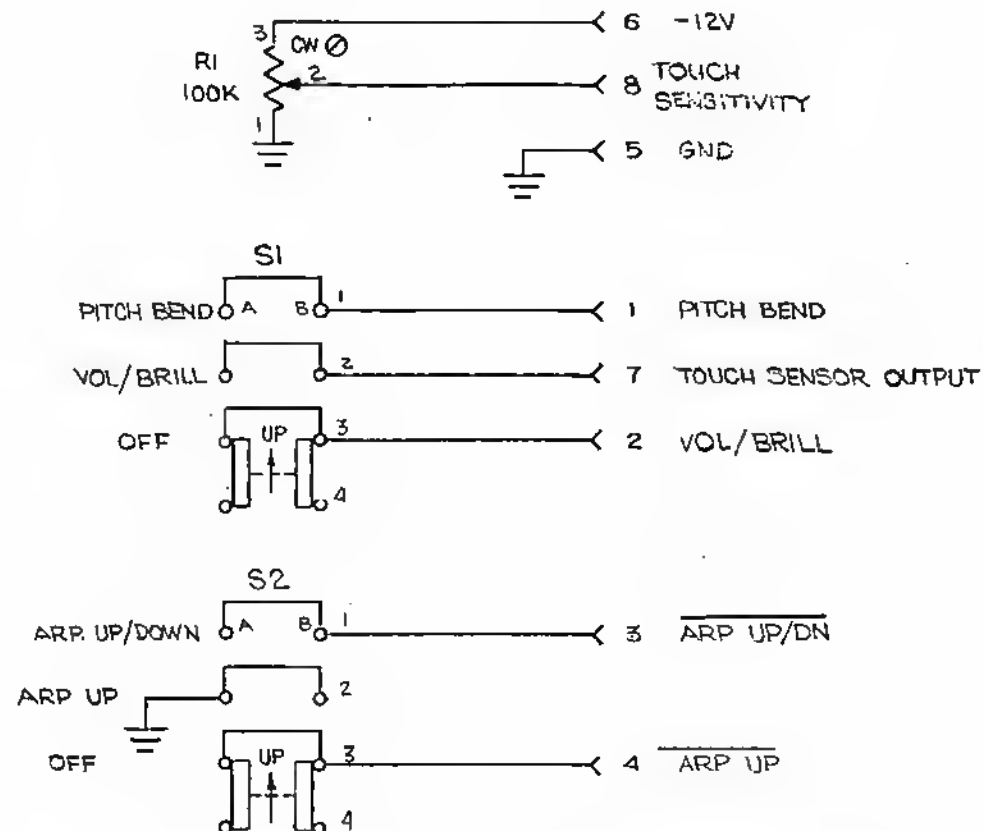
AMENTO



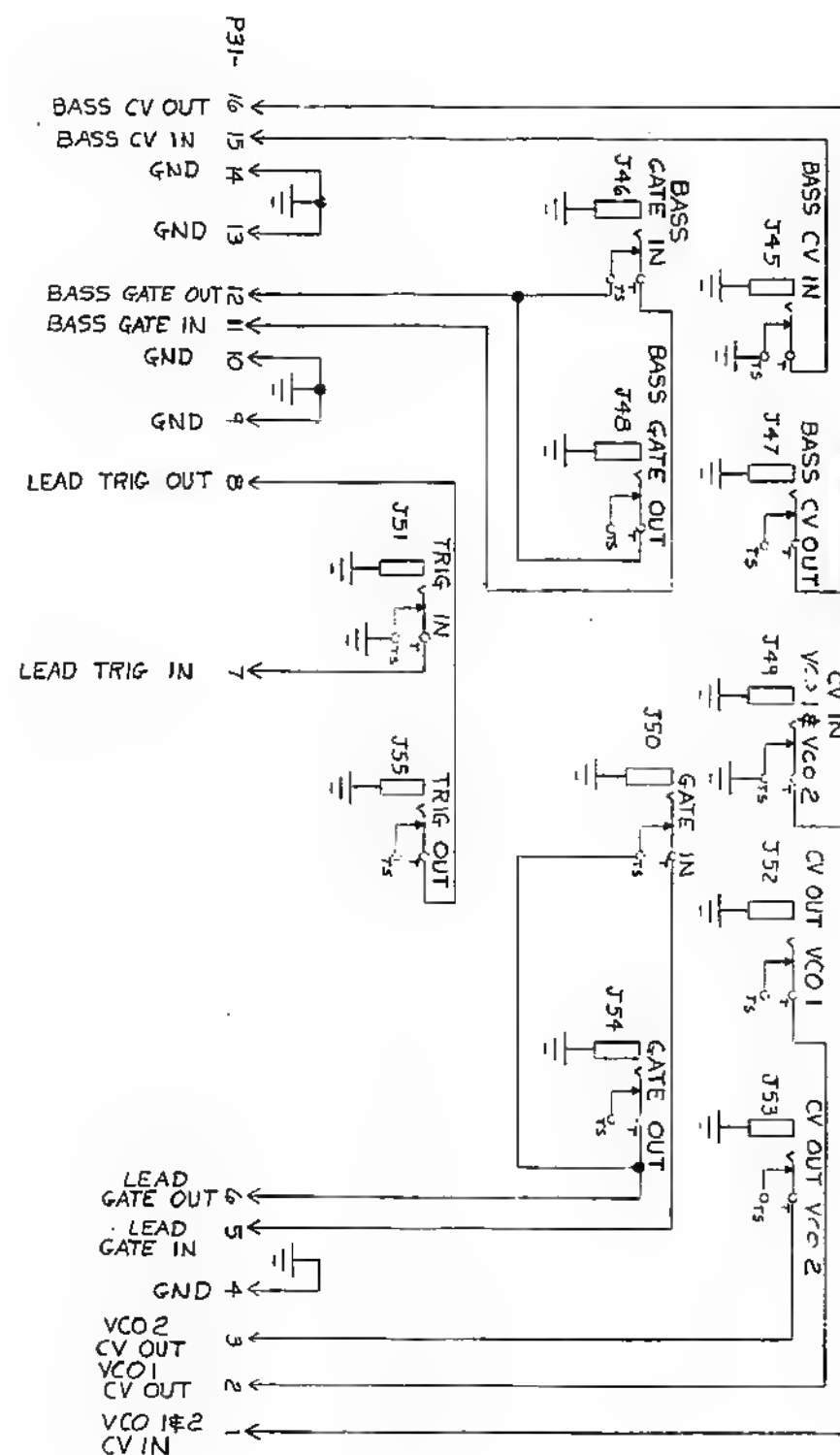
GRY
GRN
L
BRN

2.
PORTAMENTO BDARD

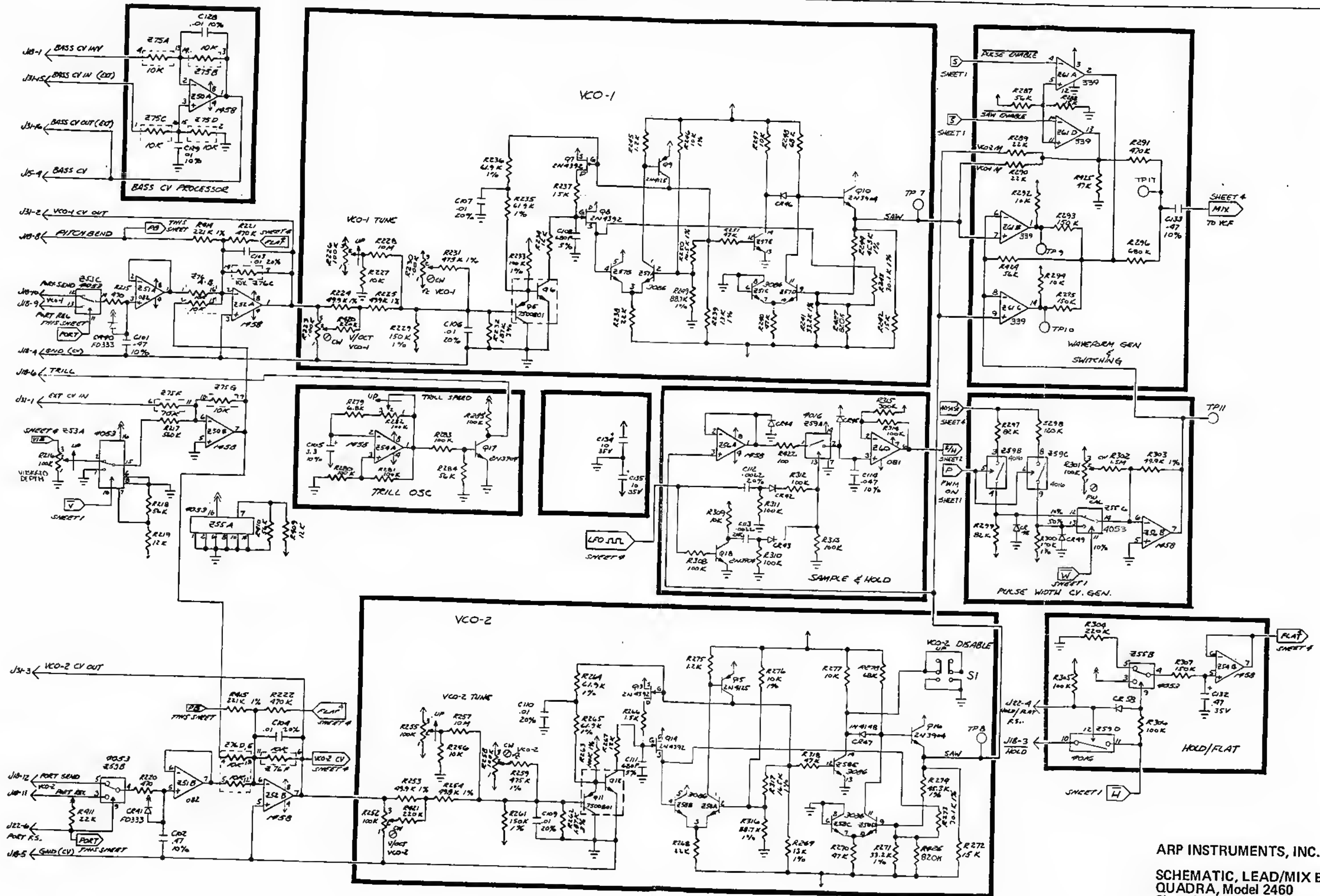
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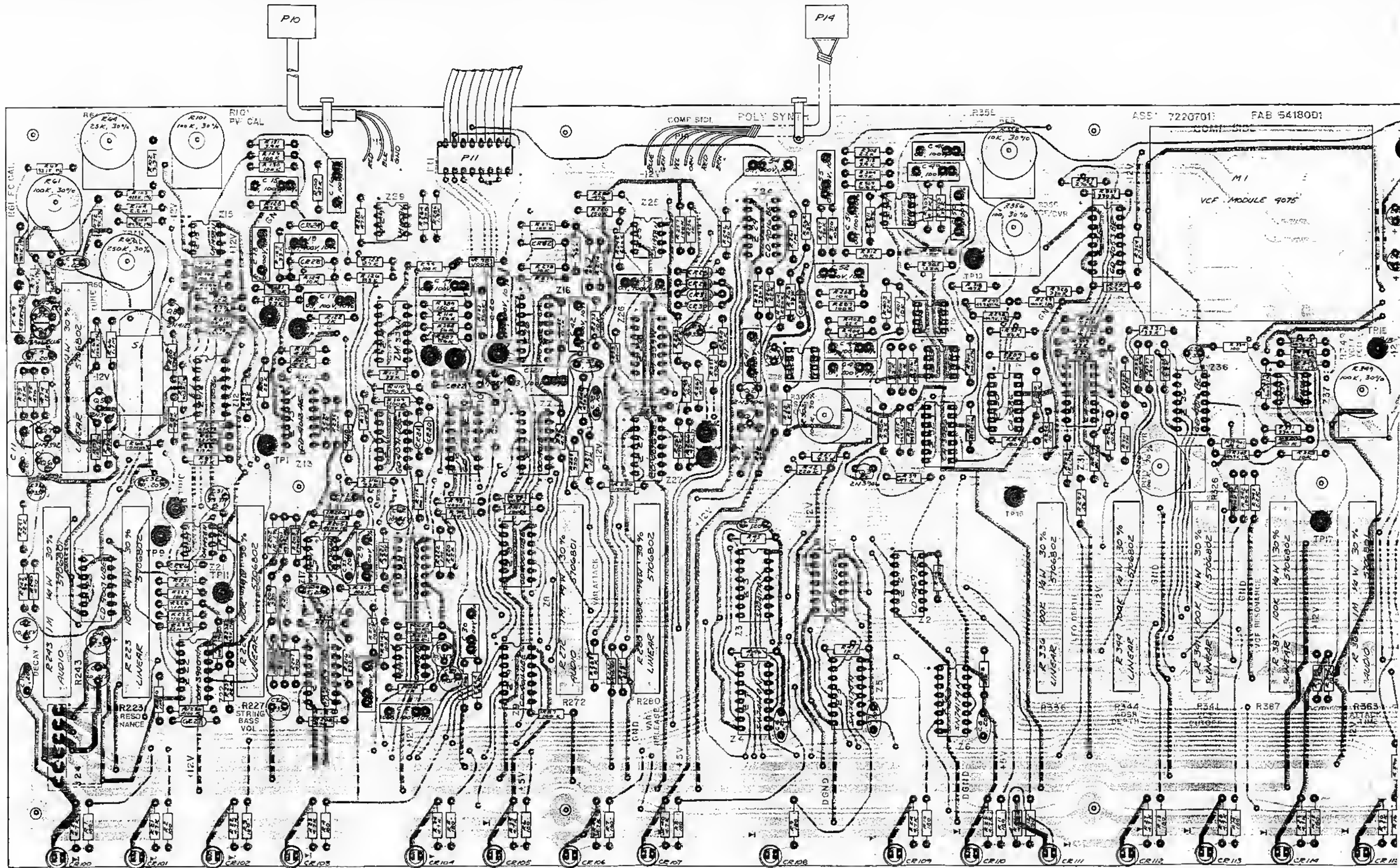


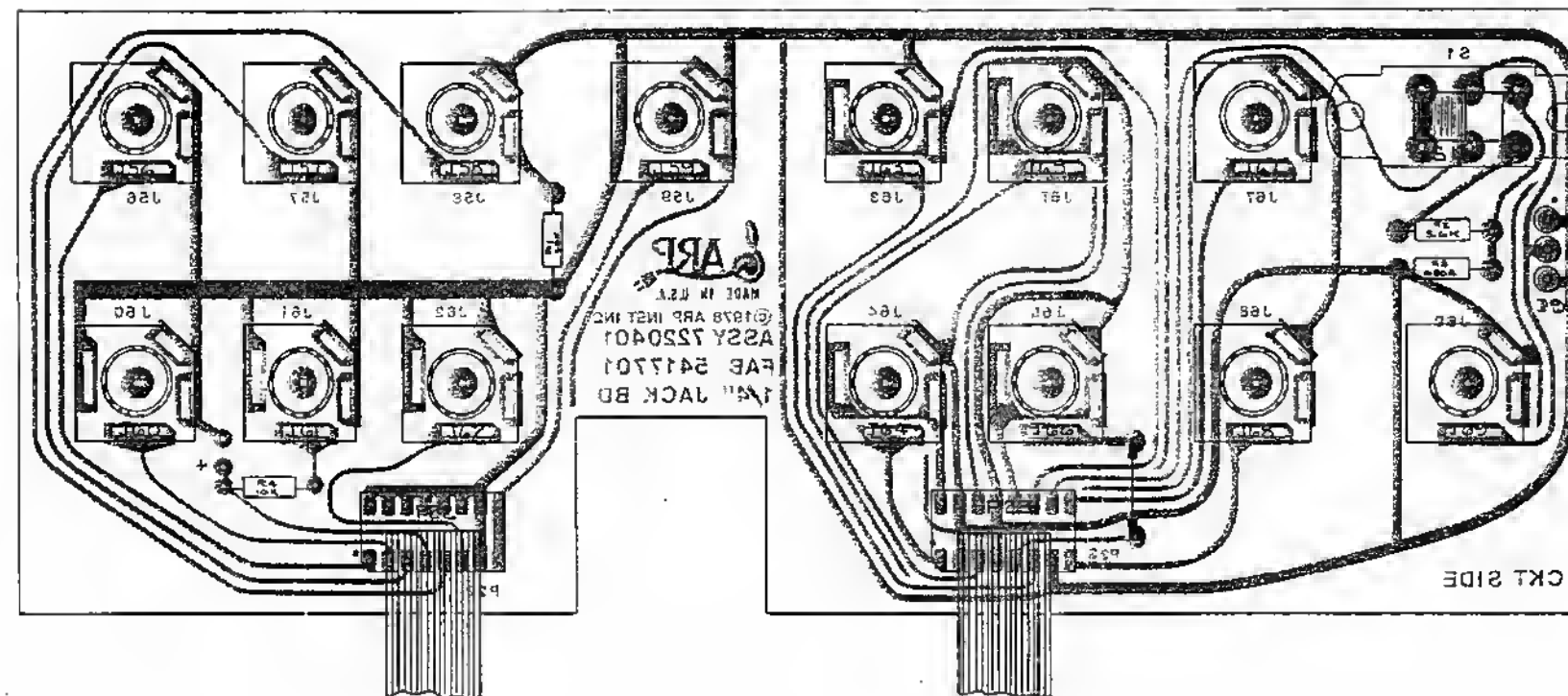
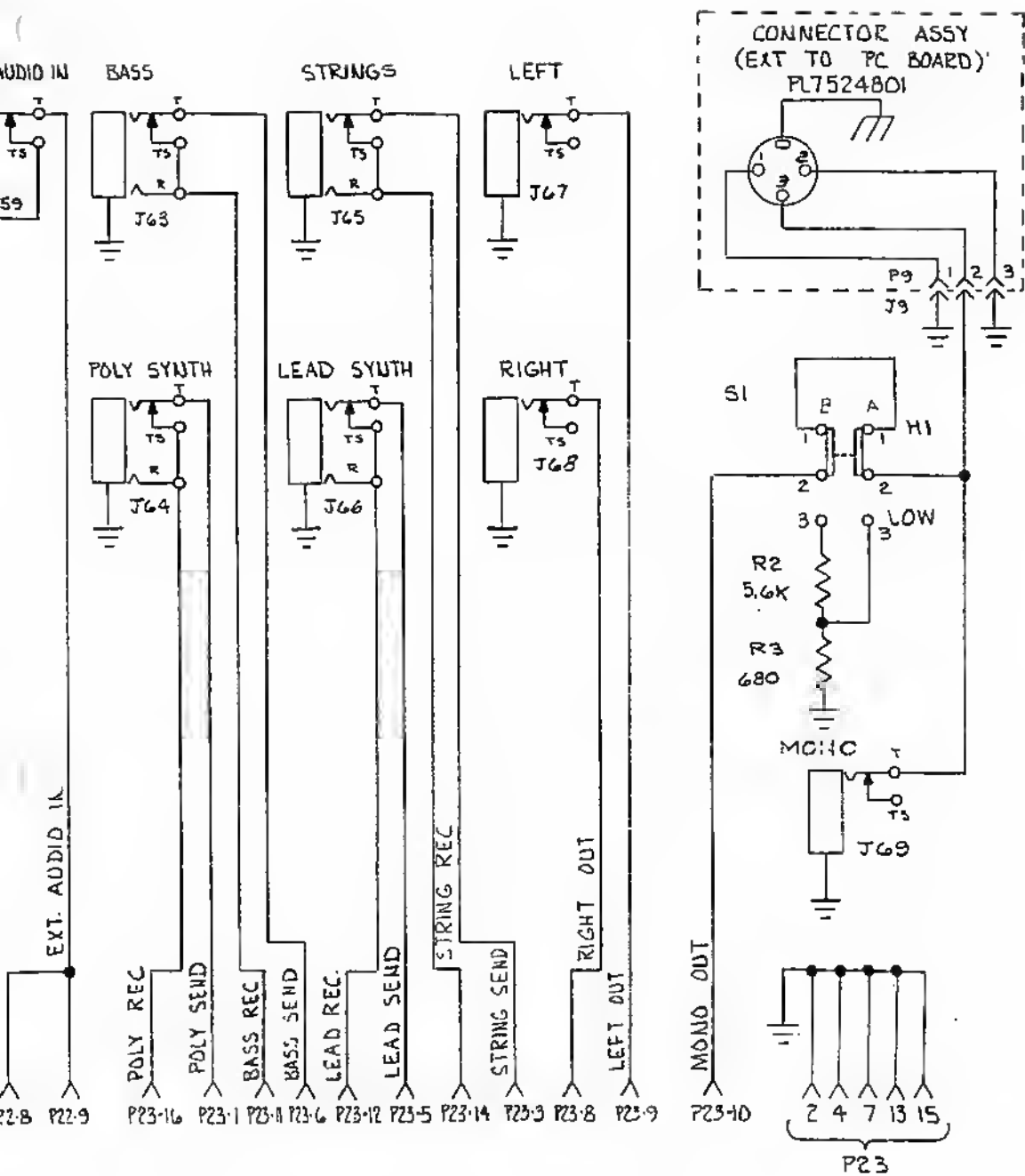
ARP INSTRUMENTS, INC.
SCHEMATIC & ASSEMBLY, TOUCH SENSOR SWITCH BOARD
QUADRA, Model 2460



ARP INSTRUMENTS, INC.
SCHEMATIC, TINY "D" JACK BOARD
QUADRA, Model 2460

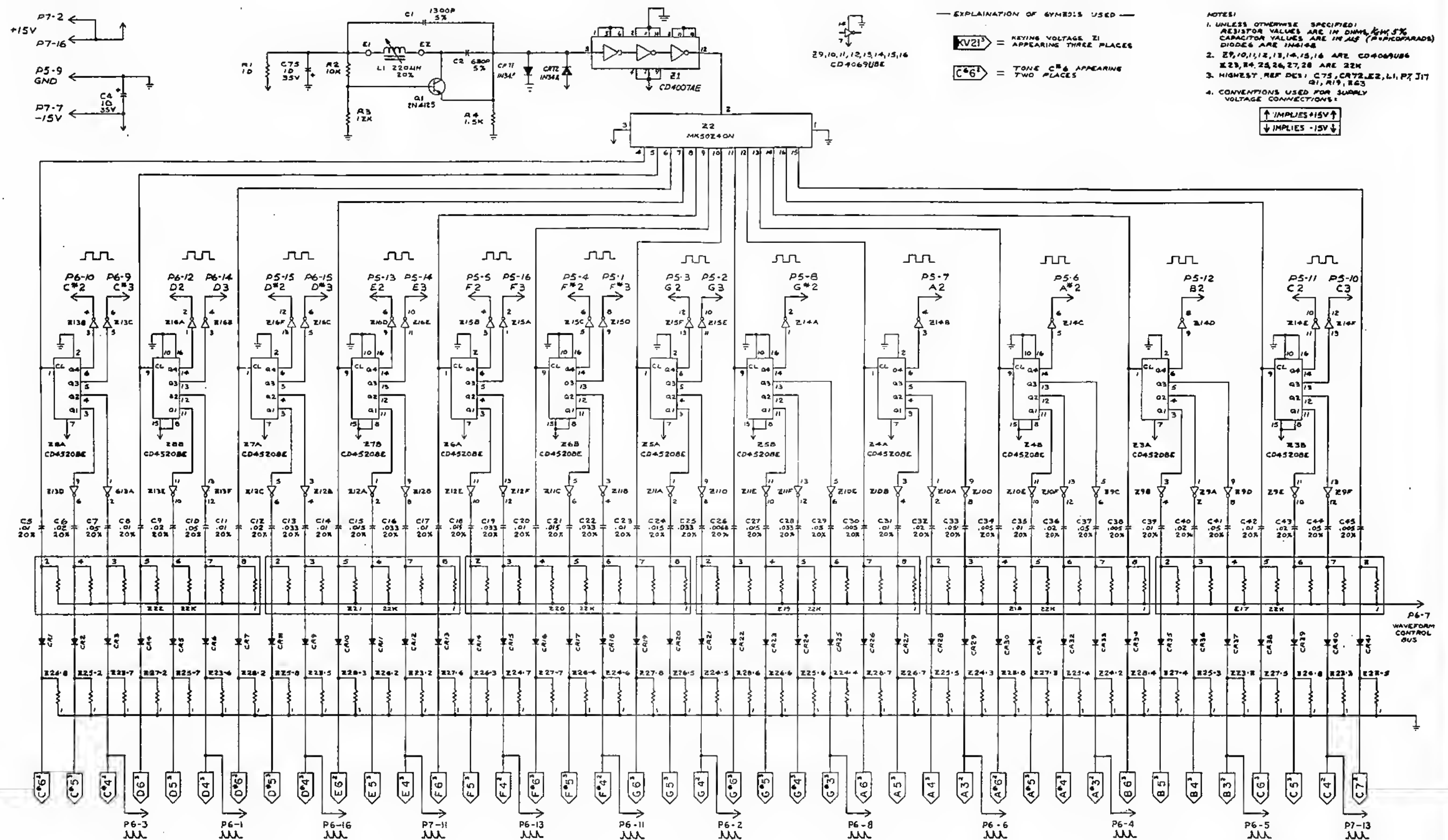




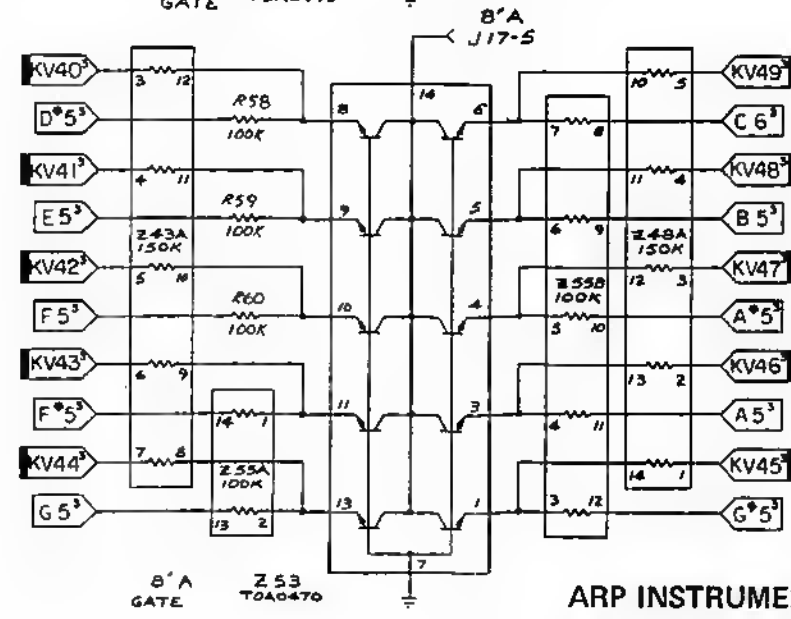
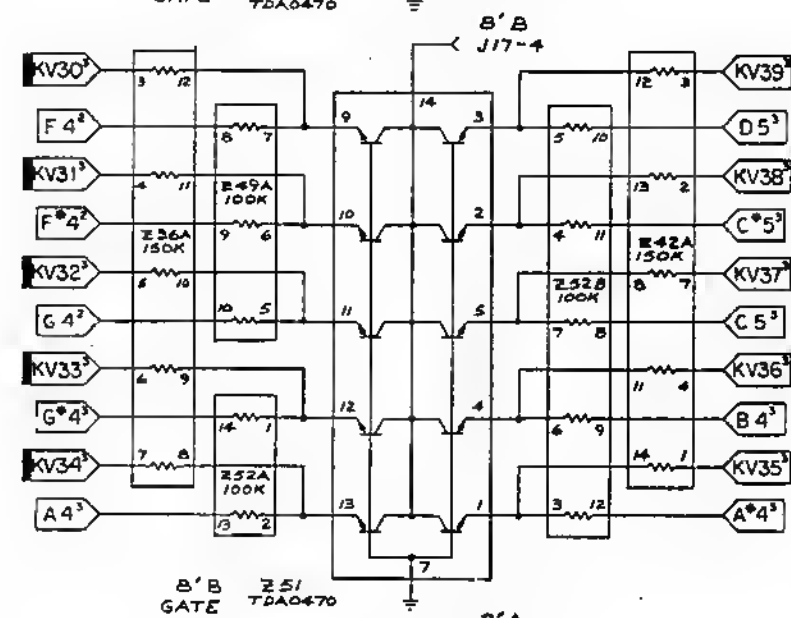
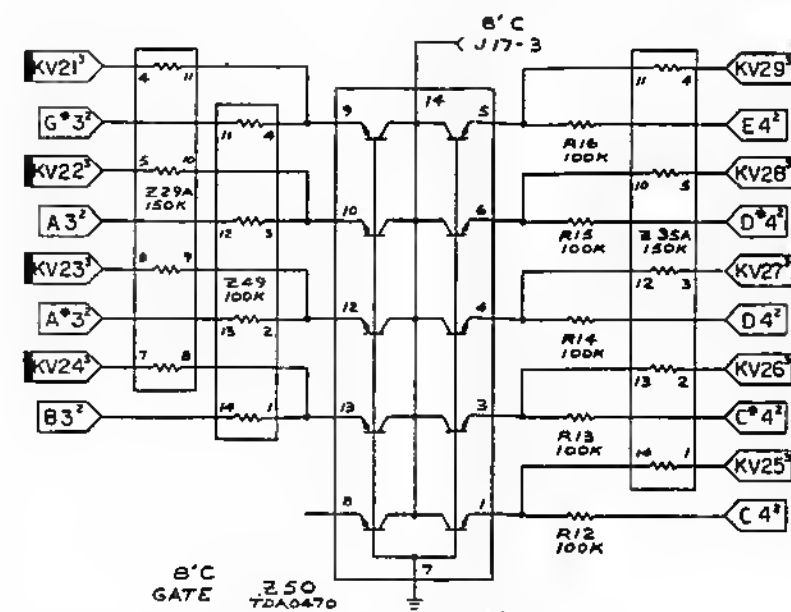
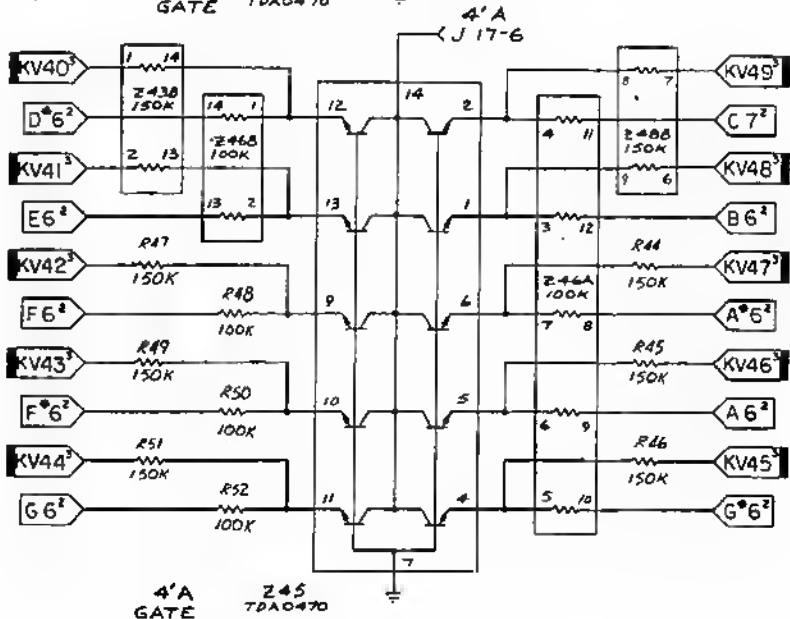
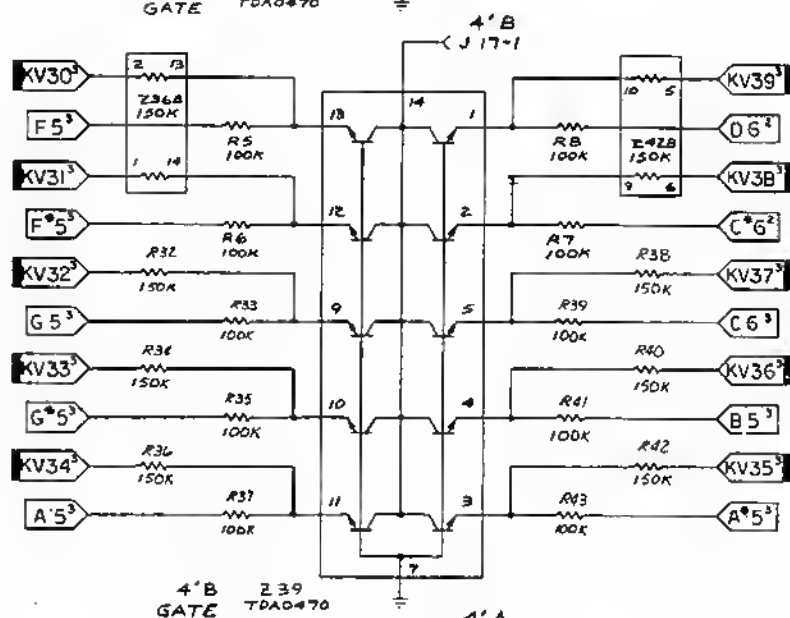
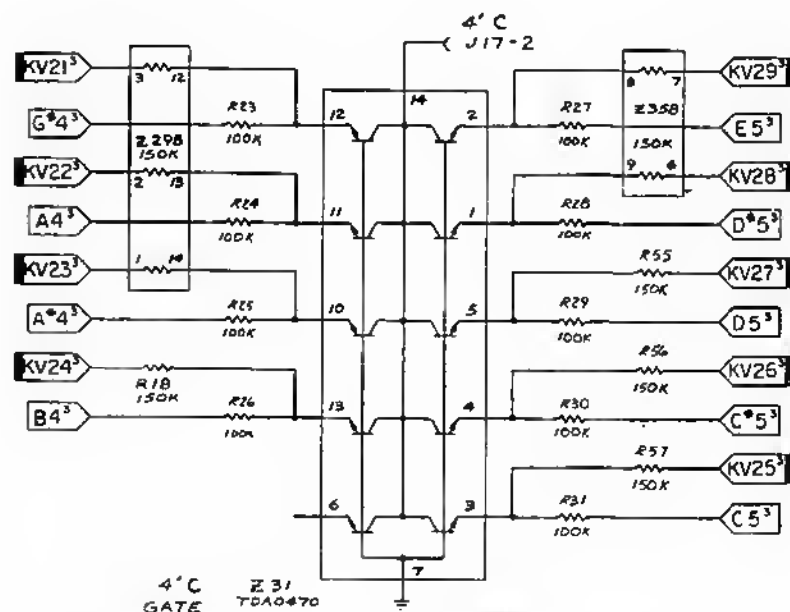
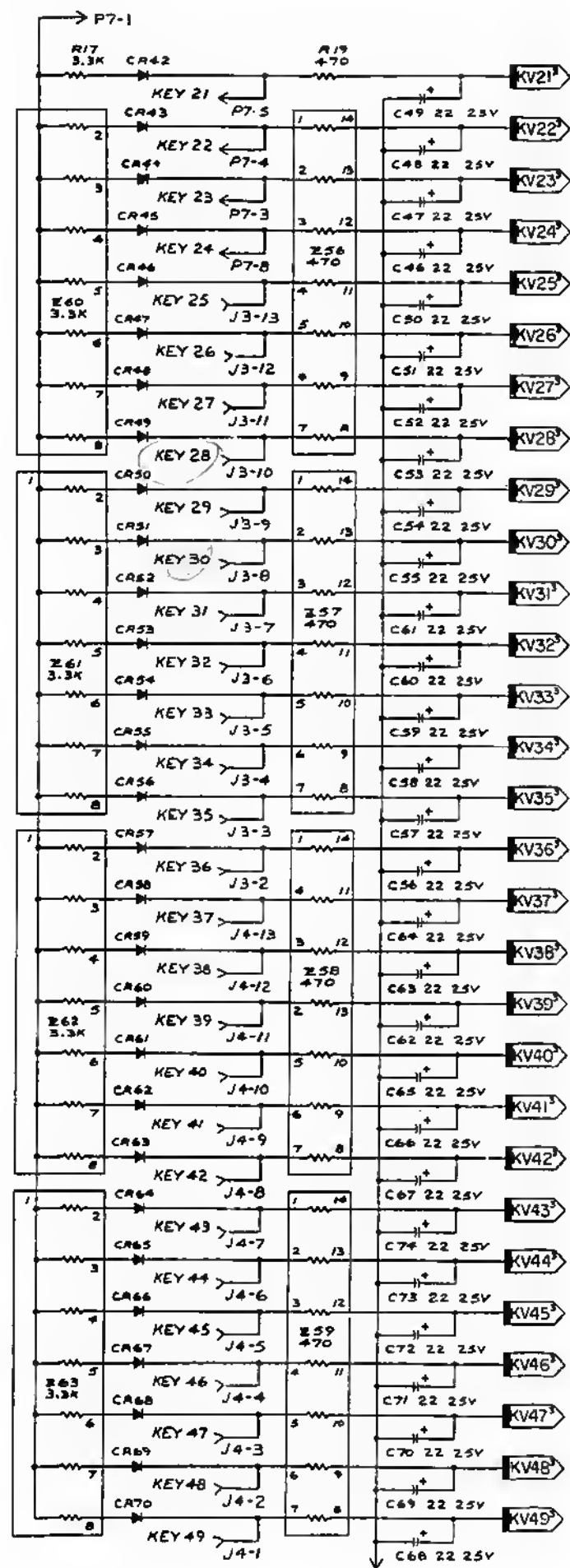


ARP INSTRUMENTS, INC.

SCHEMATIC & ASSEMBLY, 1/4" JACK BOARD
QUADRA, Model 2460

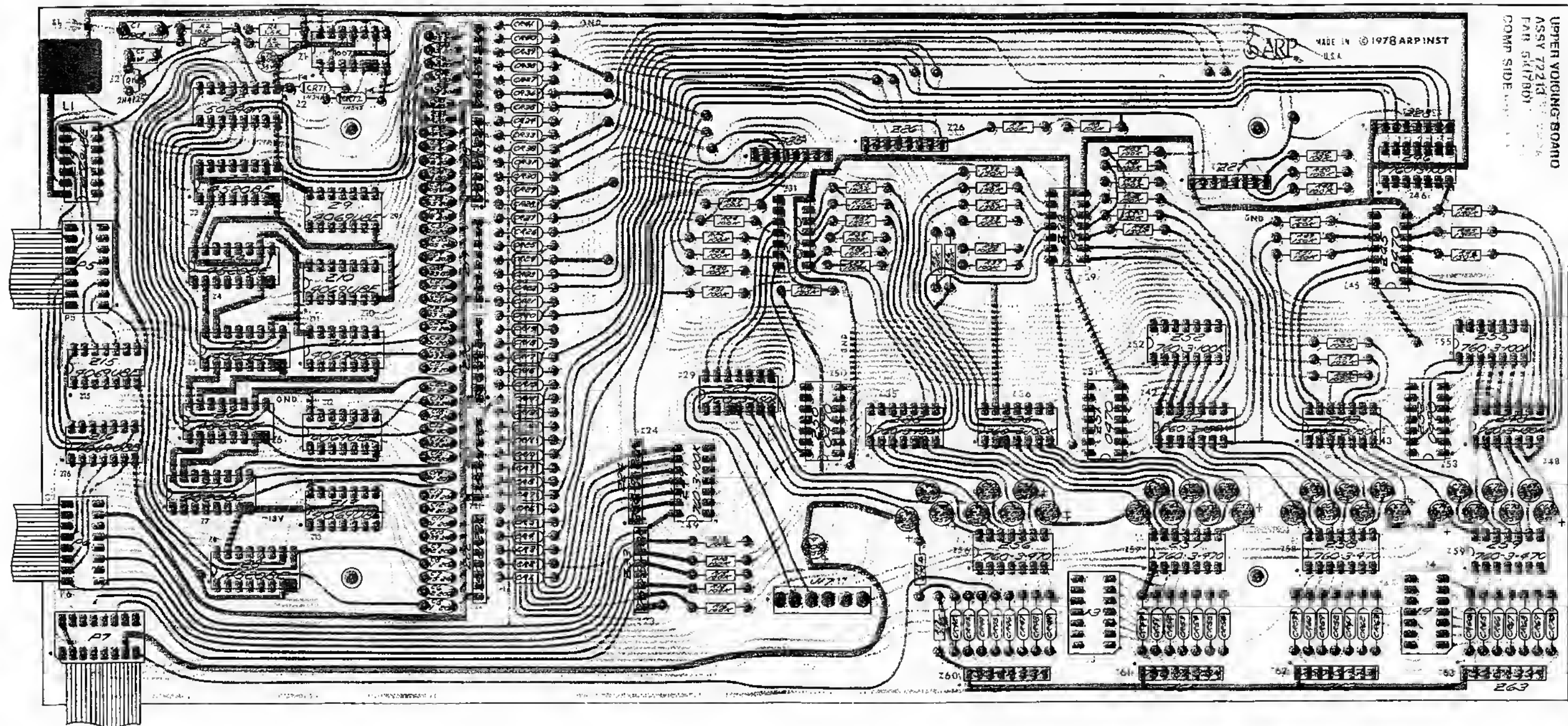


ARP INSTRUMENTS, INC.
 SCHEMATIC, UPPER VOICING BOARD
 QUADRA, Model 2460
 Sheet 1 of 2



ARP INSTRUMENTS, INC.

SCHEMATIC, UPPER VOICING BOARD
QUADRA, Model 2460
Sheet 2 of 2

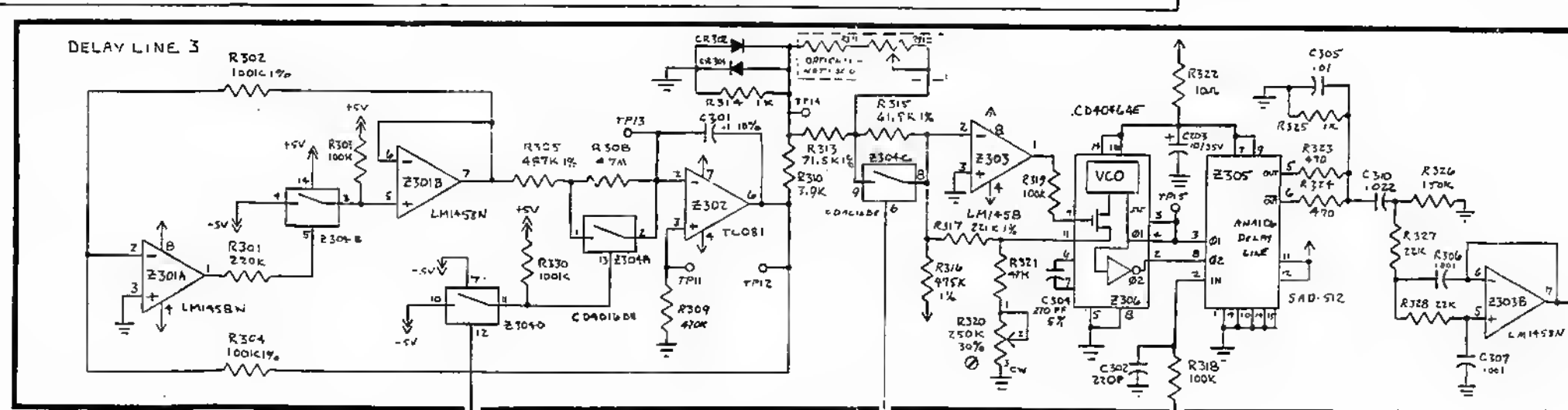
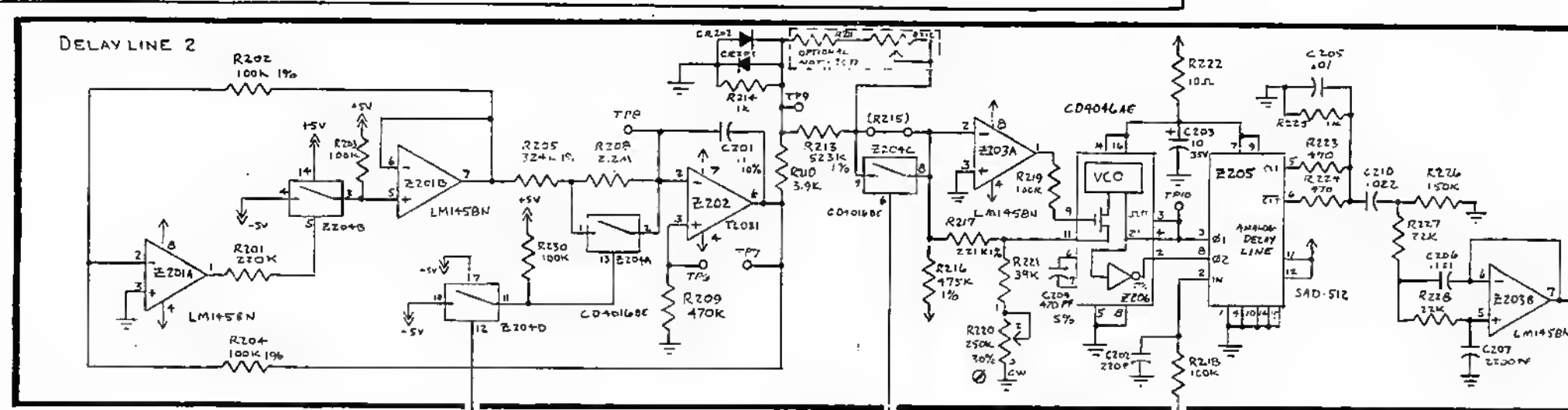
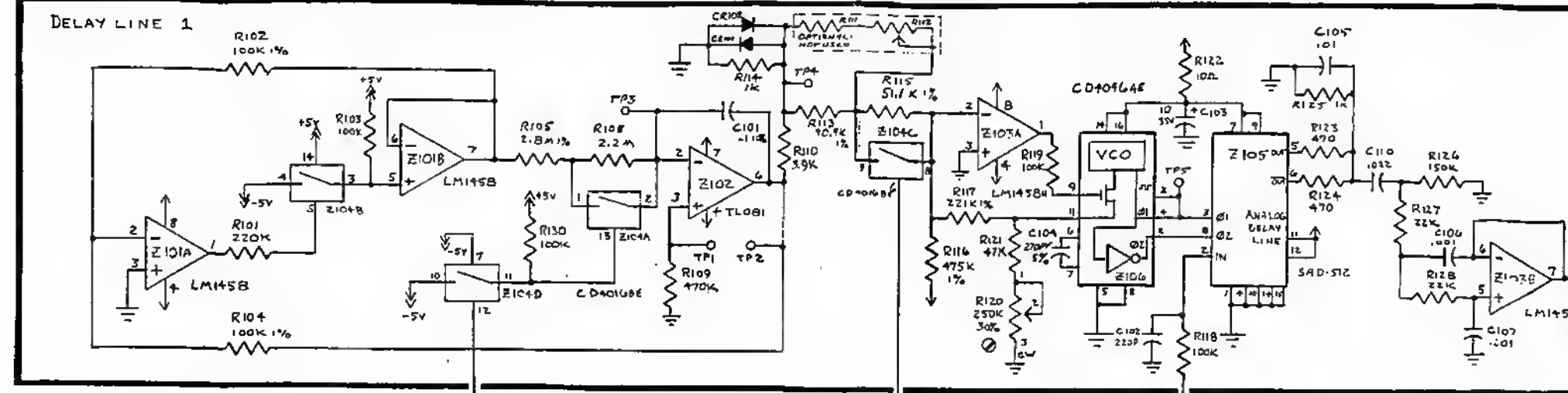


UPPER VOICING BOARD
 ASSY 72213
 FAR 5417801
 COMP SIDE

NOTES:
 1. UNLESS OTHERWISE SPECIFIED:
 RESISTOR VALUES ARE IN OHMS, $\frac{1}{4}$ W, $\pm 5\%$
 CAPACITOR VALUES ARE IN μ F (P=PICTORADS)

ARP INSTRUMENTS, INC.

ASSEMBLY, UPPER VOICING BOARD
 QUADRA, Model 2460



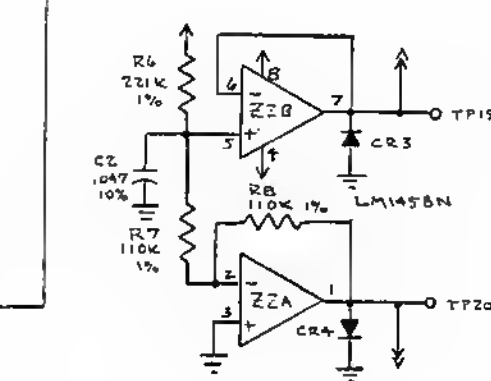
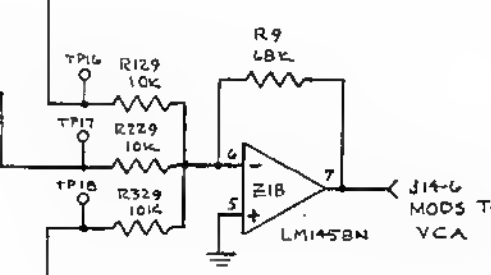
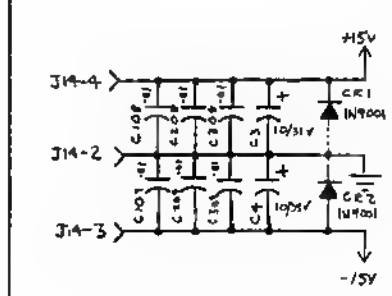
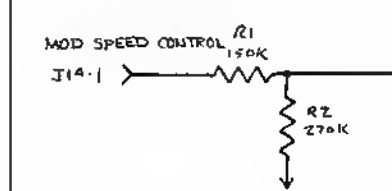
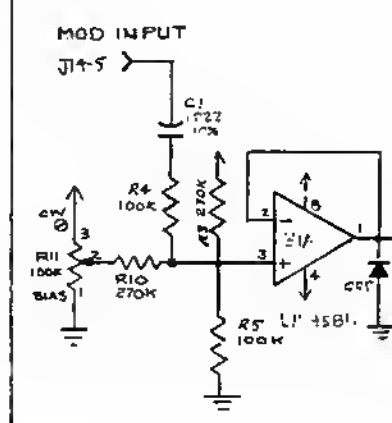
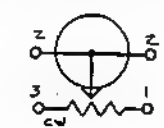
NOTES:

1. UNLESS OTHERWISE SPECIFIED:
ALL RESISTOR VALUES IN OHMS, 1/4W, 5%
ALL CAPACITOR VALUES IN μ F (P=PICOFARAD), 20%
ALL DIODES ARE 1N4148

2. HIGHEST REF DES. C307, CR302, R329, Z306

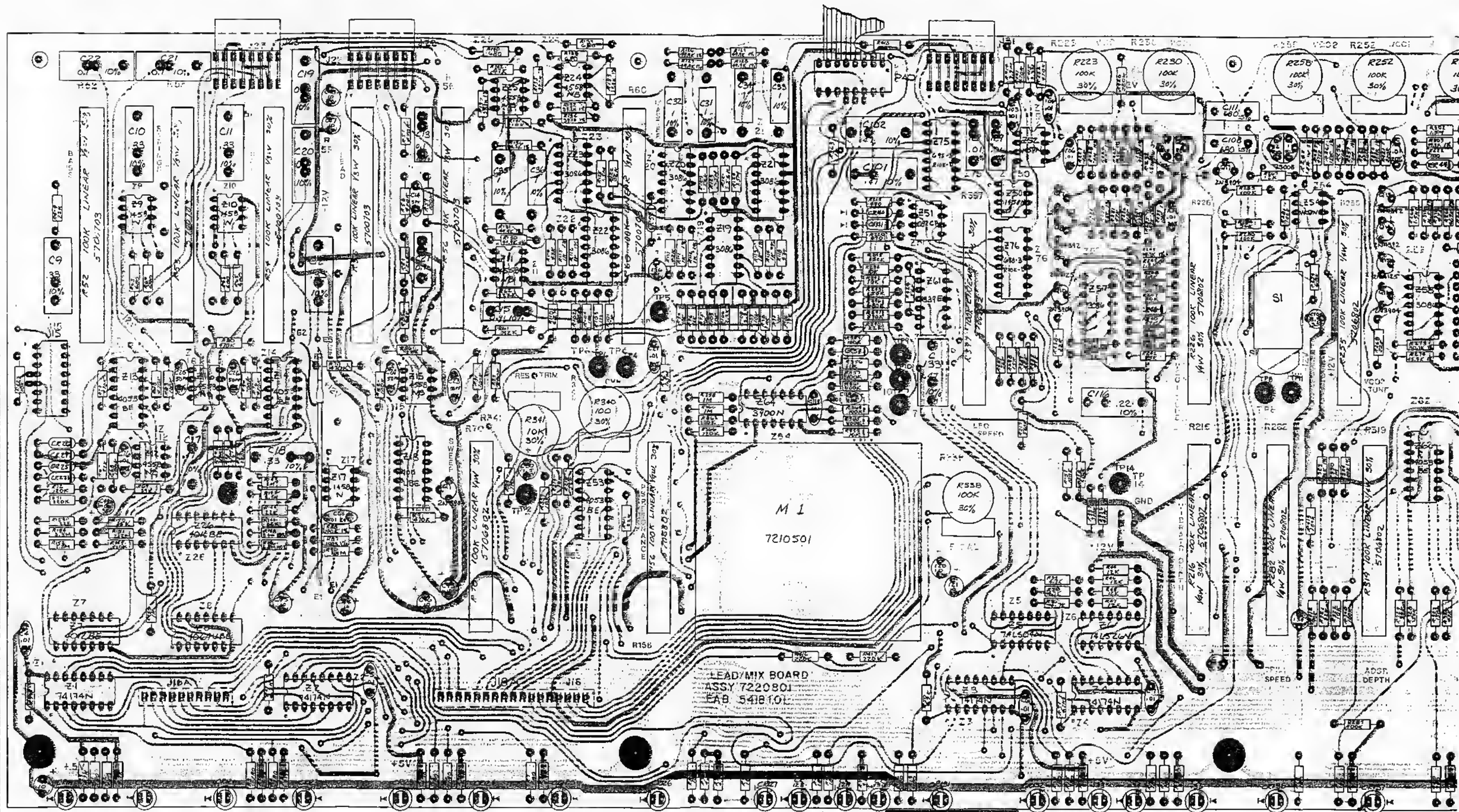
3. CONVENTION USED FOR POWER SUPPLY:

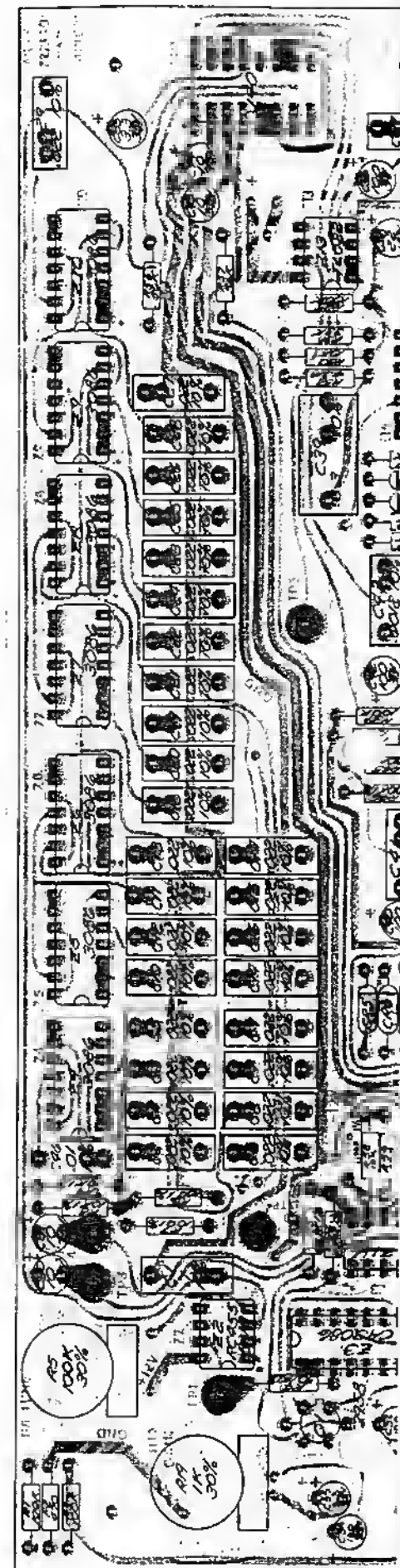
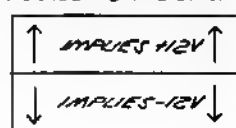
↑ IMPLIES +15V	↑ IMPLIES +5V
↓ IMPLIES -15V	↓ IMPLIES -5V

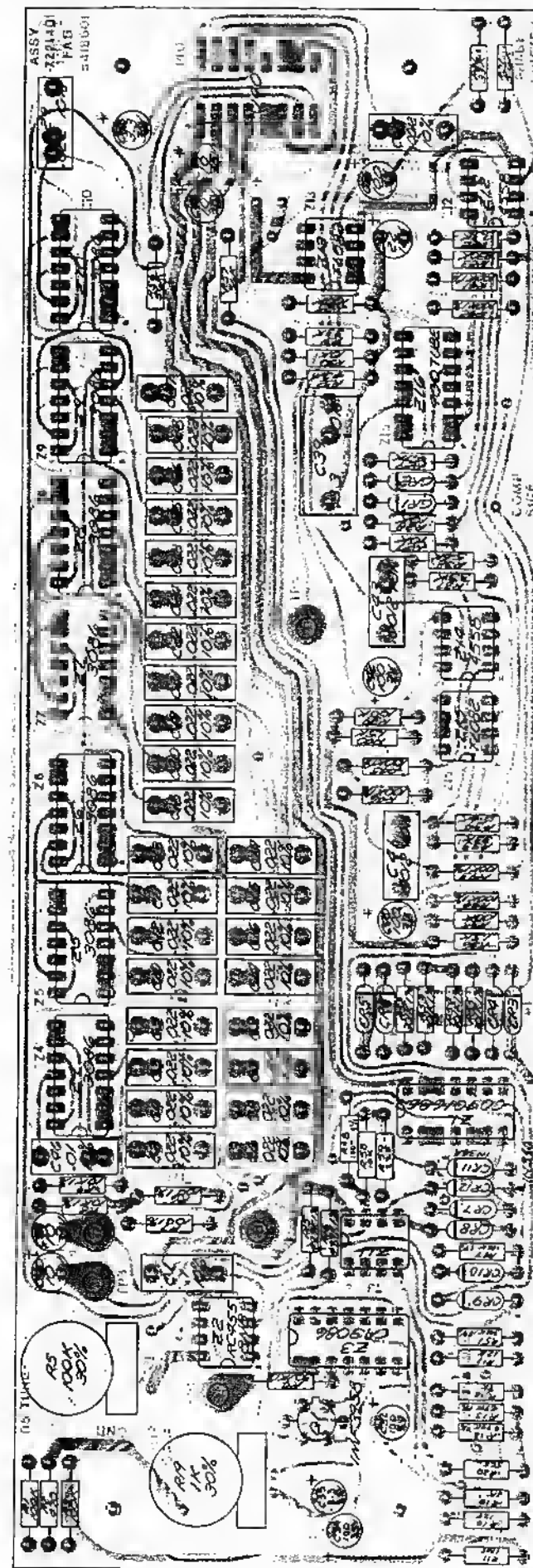
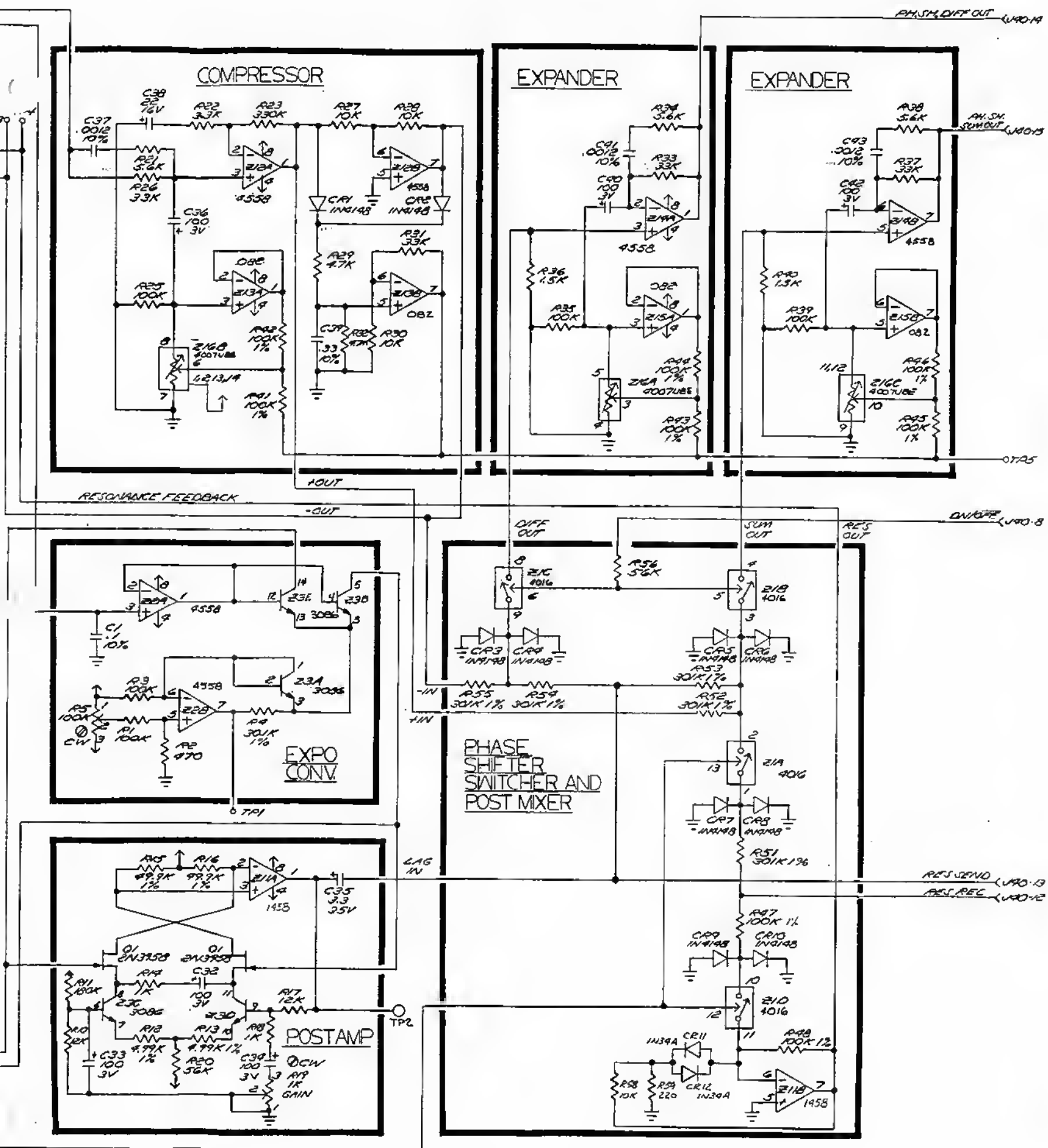


ARP INSTRUMENTS, INC.

SCHEMATIC, PHASER BOARD
QUADRA, Model 2460

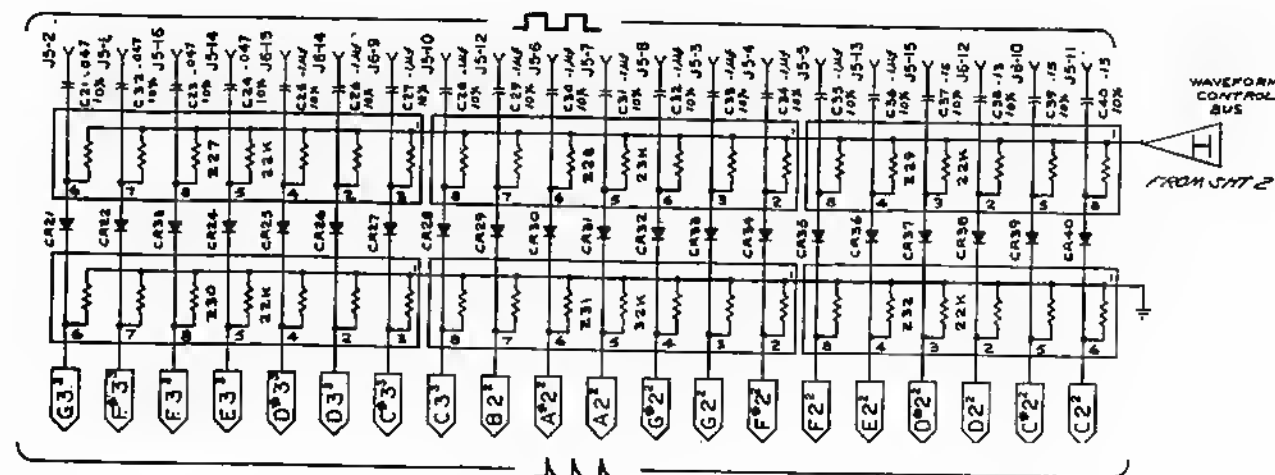






NOTES:
 1. UNLESS OTHERWISE SPECIFIED:
 RESISTOR VALUES ARE IN OHMS, 1/4W, 5%
 CAPACITOR VALUES ARE IN μ f.
 DIODES ARE IN 4148.

ARP INSTRUMENTS, INC.
 SCHEMATIC & ASSEMBLY,
 PHASE SHIFTER BOARD
 QUADRA, Model 2460



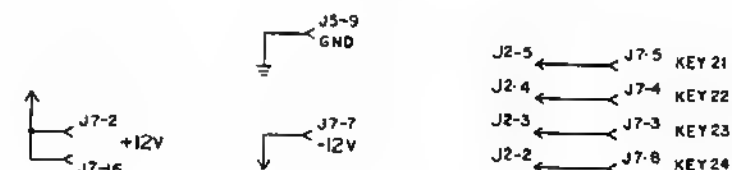
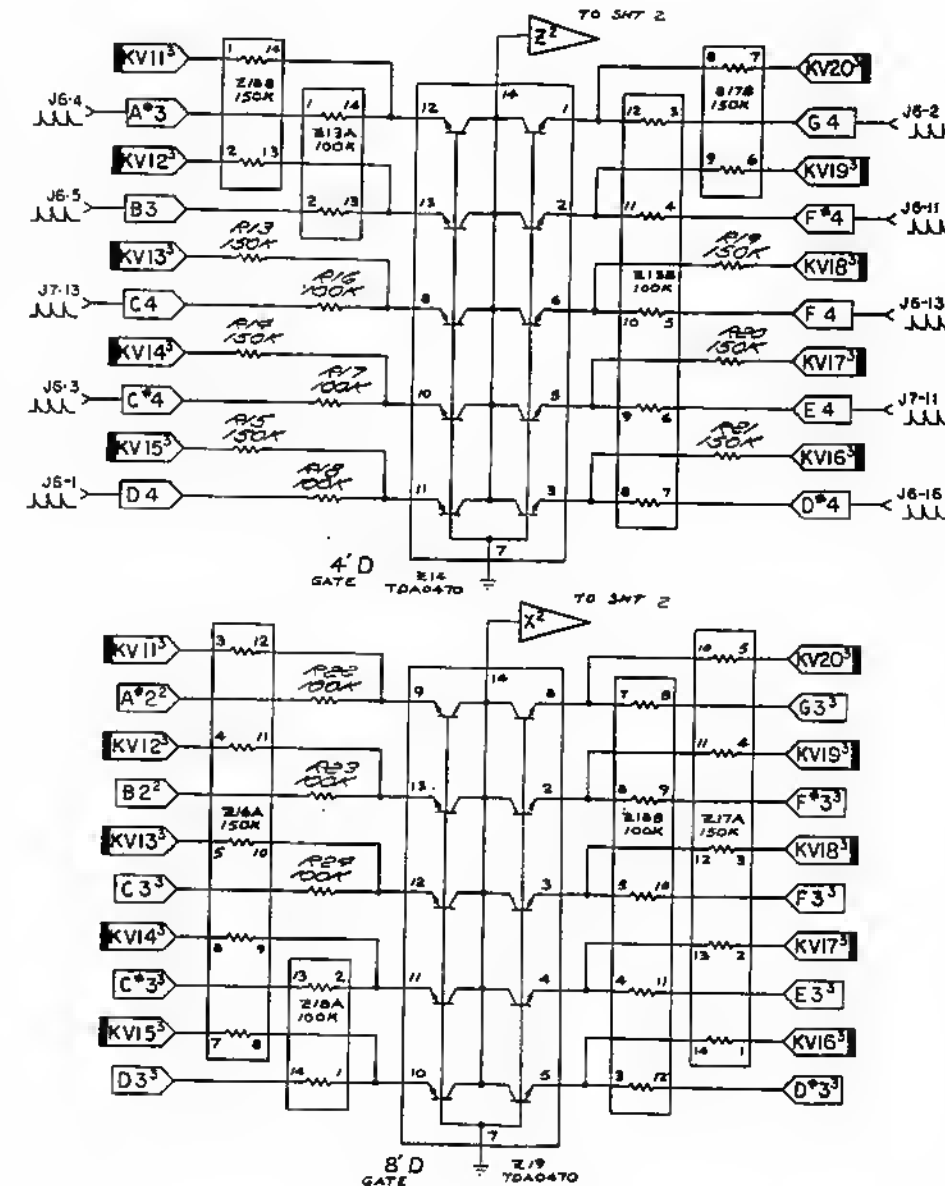
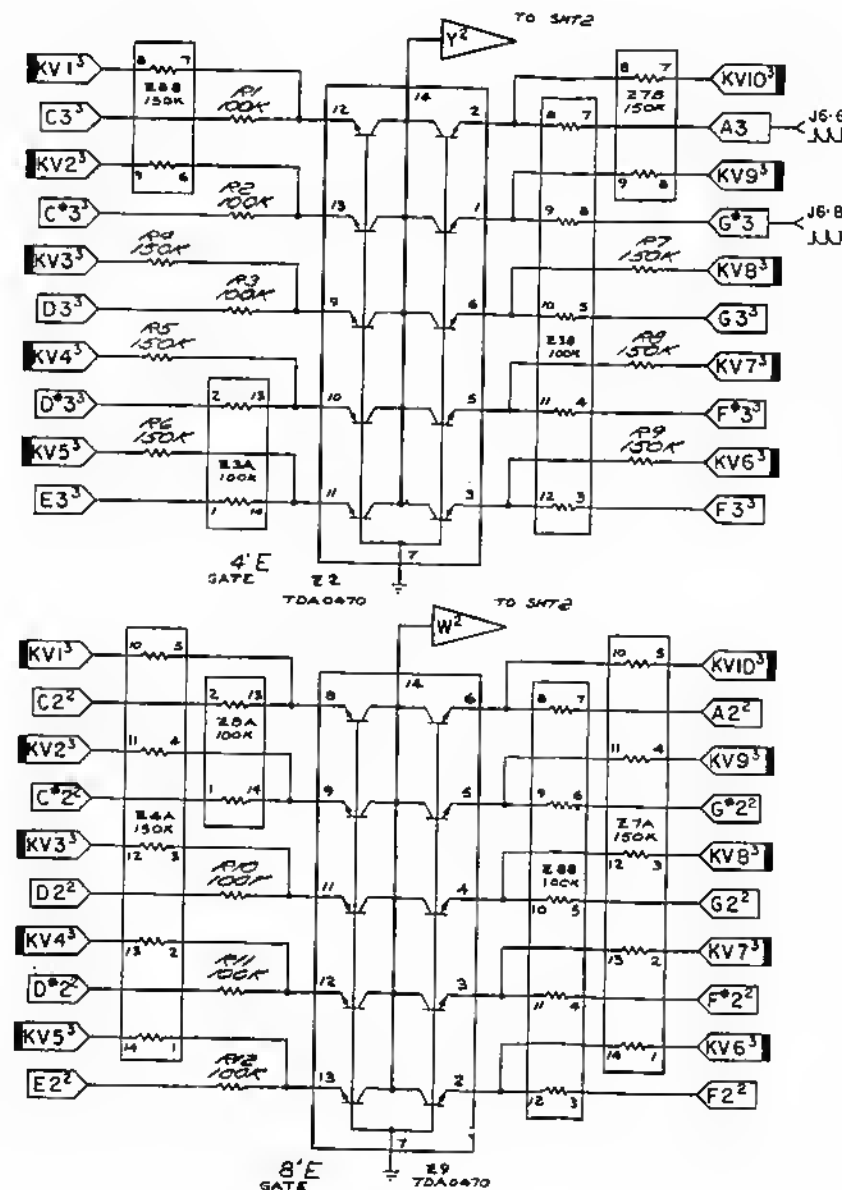
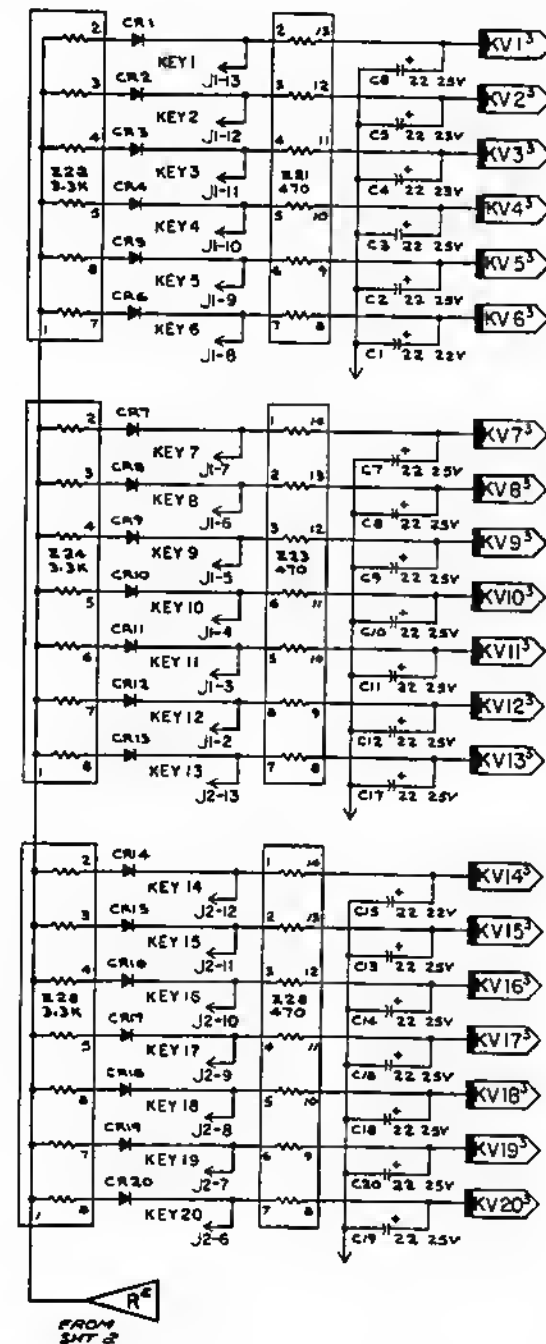
SYM	DESCRIPTION
Z	4' D
Y	4' E
X	8' D
W	8' E
H	WAVEFORM CONTROL BUS
S	BASS GATE
R	SUSTAIN BUS

— EXPLANATION OF SYMBOLS USED —

- KVI³** = KEYING VOLTAGE ONE, SYMBOL APPEARING THREE PLACES
- G3³** = TONE G3, APPEARING THREE PLACES
- J5-2²** = CONNECTION J5-2, APPEARING TWO PLACES
- J1-13²** = CONNECTION J1-13, APPEARING TWO PLACES
- Z²** = MNEMONIC SYMBOL INDICATING 4' D APPEARING TWO PLACES

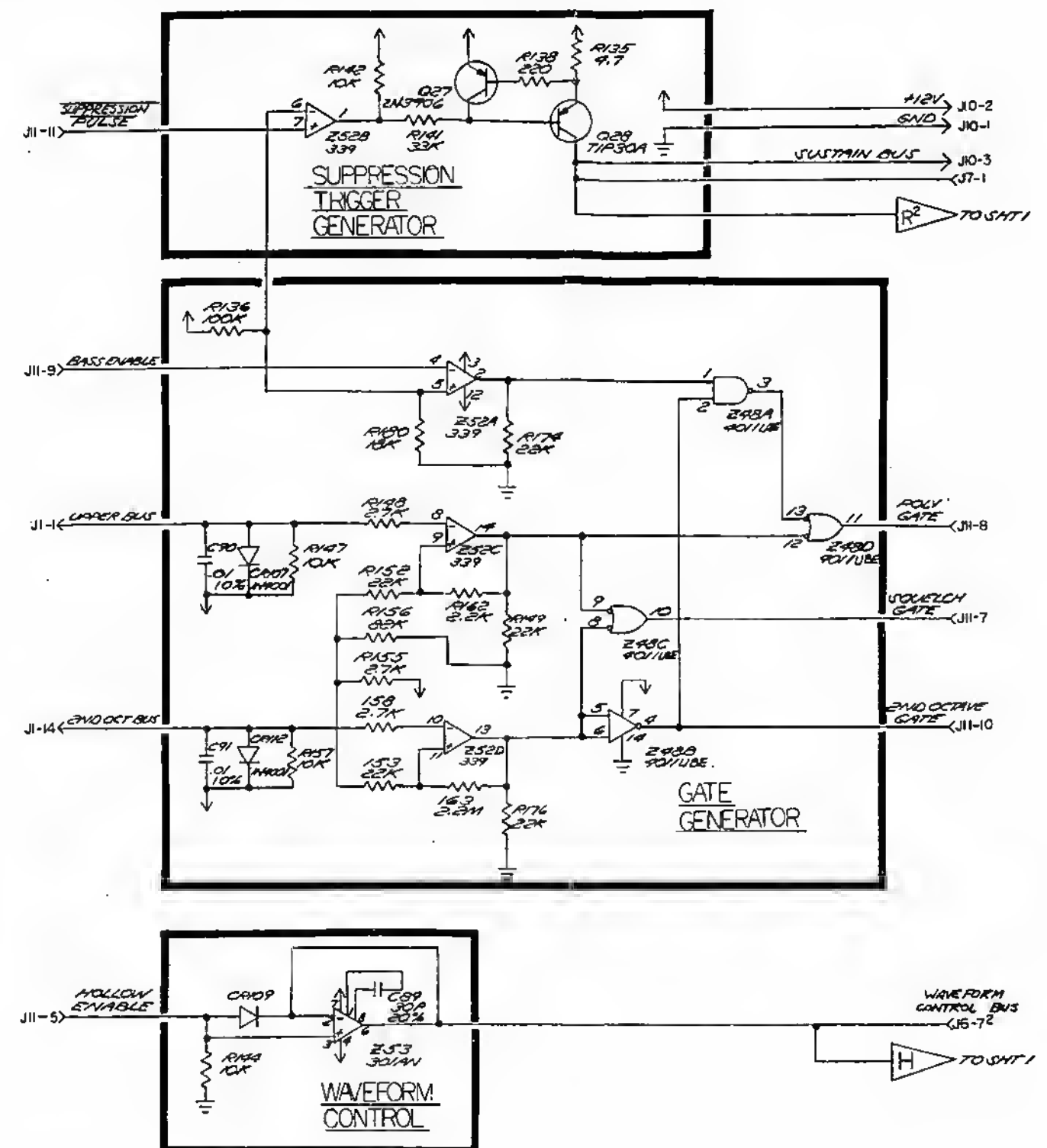
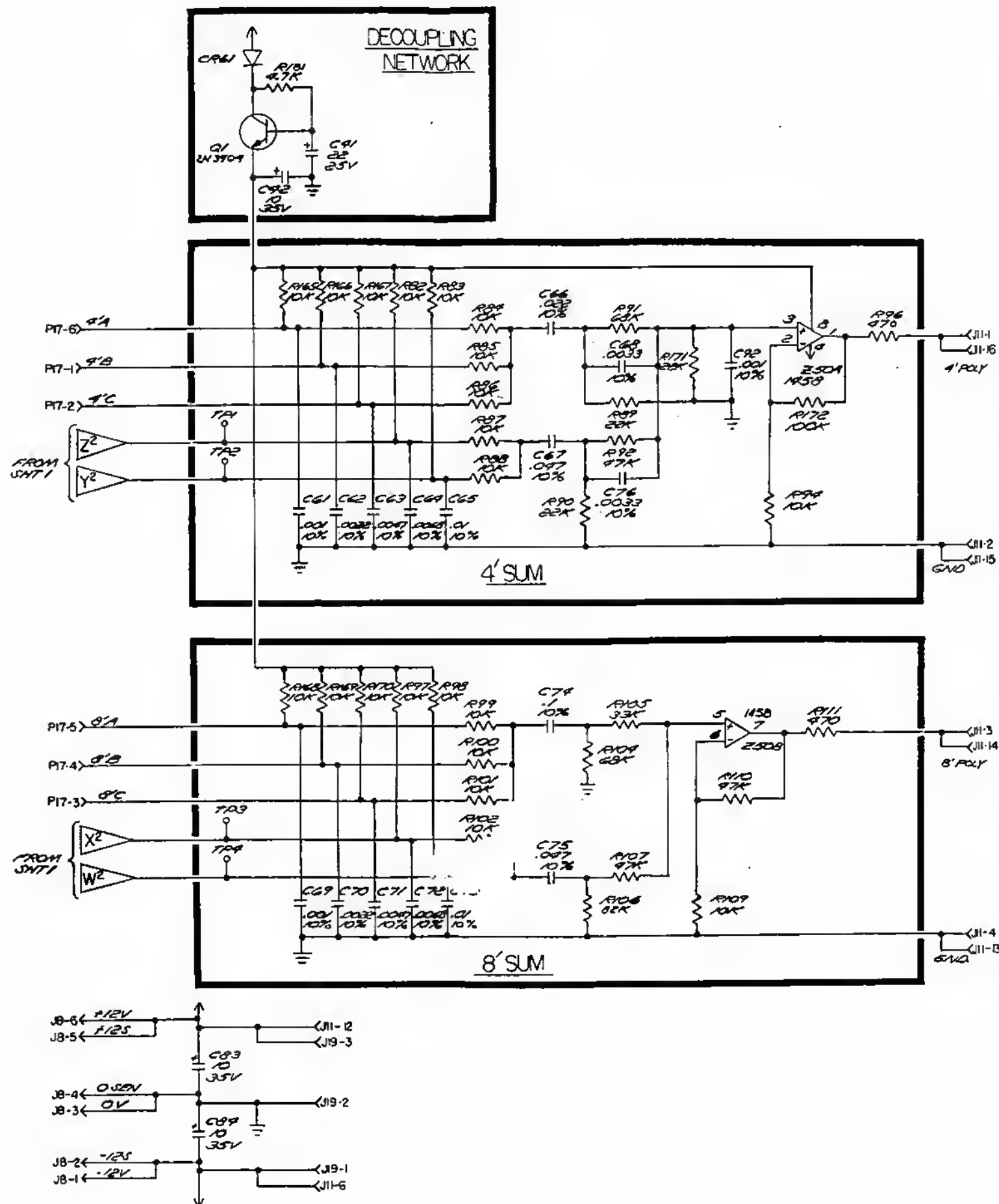
- NOTES:
1. UNLESS OTHERWISE SPECIFIED, RESISTOR VALUES ARE IN OHMS CAPACITOR VALUES ARE IN P.F. (PIKOFARADS) DIODES ARE IN 1N4148
 2. HIGHEST REP RES: C92, CR12, J17, P17, Q23, R181, Z53
 3. CONVENTIONS USED FOR SUPPLY VOLTAGE CONNECTIONS:

↑ IMPLIES +12V
↓ IMPLIES -12V



ARP INSTRUMENTS, INC.

SCHEMATIC, LOWER VOICING BOARD
QUADRA, Model 2460
Sheet 1 of 2



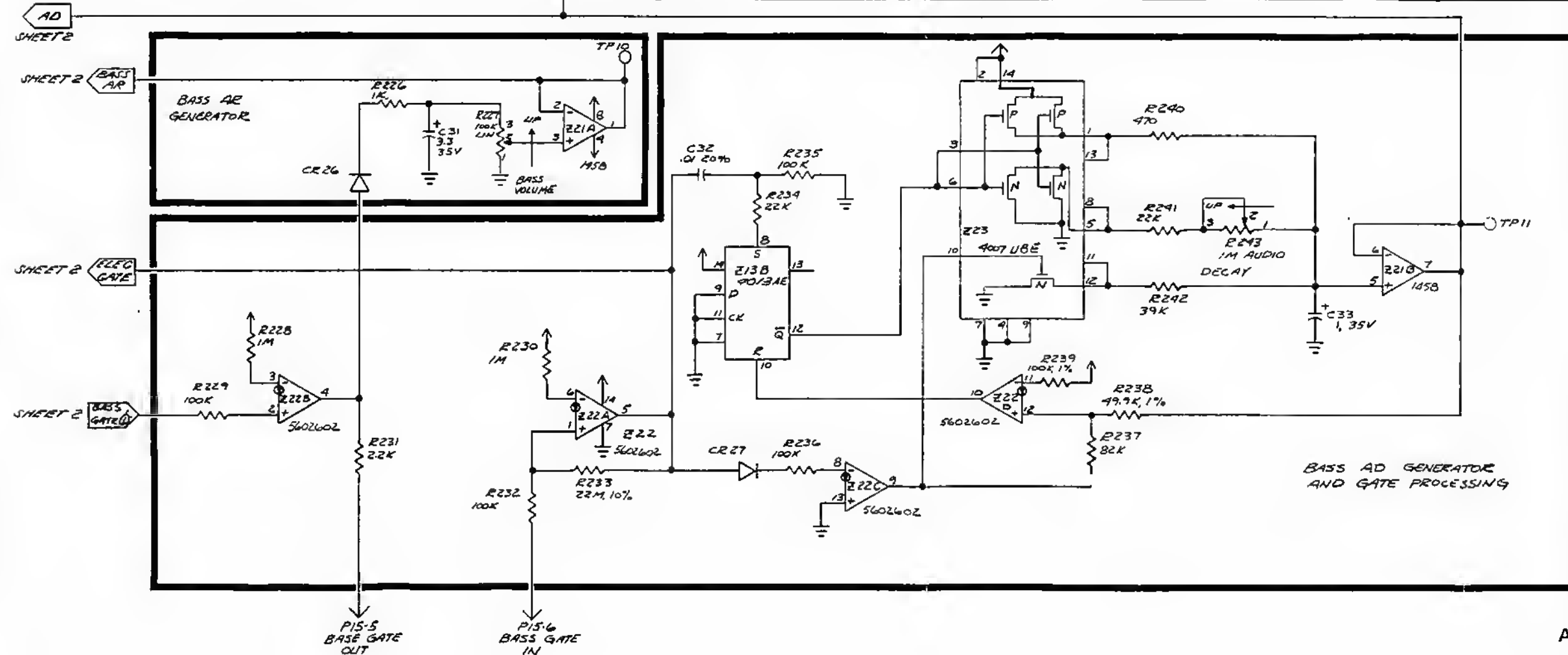
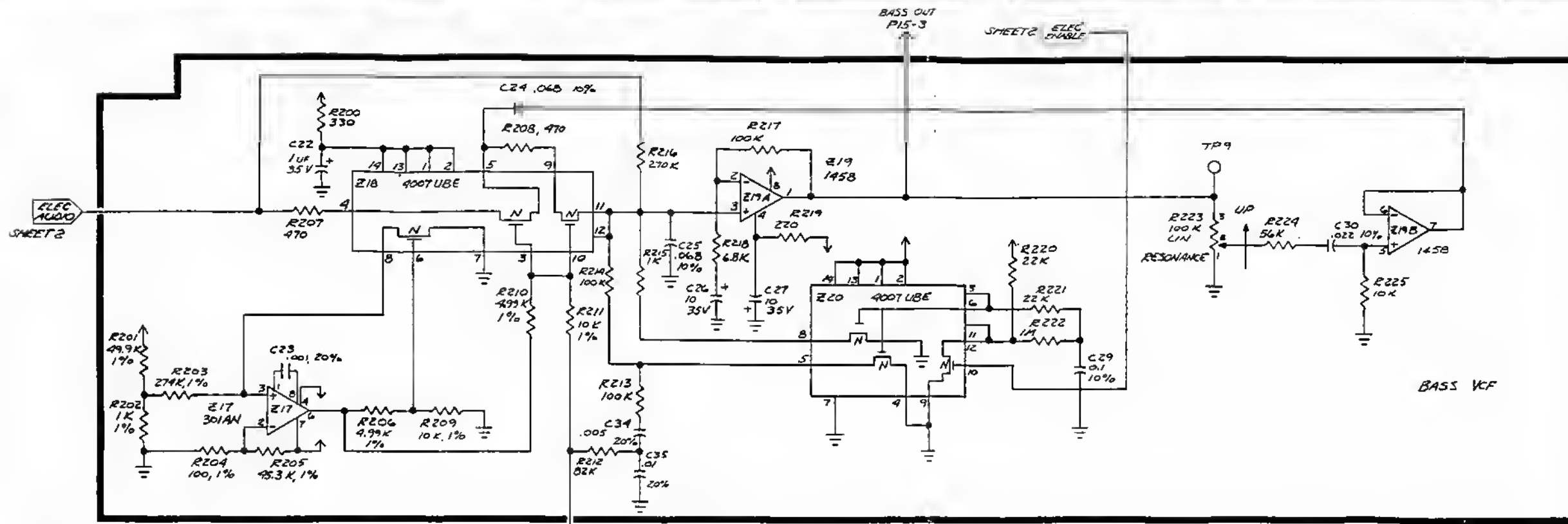
ARP INSTRUMENTS, INC.
SCHEMATIC, LOWER VOICING BOARD
QUADRA, Model 2460
Sheet 2 of 2

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MADE IN U.S.A.

NOTES:
1. UNLESS SPECIFIED,
RESISTOR VALUES ARE IN OHMS,
CAPACITOR VALUES ARE IN PICOFARADS,
DIODES ARE IN 4148.

LV 3D
15961

43



ARP INSTRUMENTS, INC.

SCHEMATIC, POLY SYNTH BOARD
QUADRA, Model 2460
Sheet 3 of 5

Z11	1401101
R19	1000904
R5	1000915
C35	1100611
C30, 31, 44, 45	1100612
C38	1100601
C32, 33, 34, 36, 40, 42	1100616
J40	2101302

LM1458

IC OP AMP DUAL
POT ROT TRIM 1K 1/4W 30%
POT RDT TRIM 100K 1/4W 30%
CAP TANT 3.3UF 35V 10%
CAP TANT 10UF 35V 20%
CAP TANT 22UF 16V 20%
CAP TANT 100UF 3V 20%
SOCKET DUAL IN LINE 16P

LEAD/MIX BOARD

CR25, 26, 27, 28	1200101
CR42-59	1200301
CR40, 41	1201201
CR119-127, 129, 131-133, 135-142	1201601
CR128, 130, 134	1201602
Q1, 10, 16, 17, 18, 20	1302901
Q19, 21, 22	1303001
Q9, 15	1305101
Q7, 8, 13, 14	1301301
Q5, 6, 11, 12	7500801
Z75, 76	1408702
Z9, 10, 17, 50, 52, 54, 56	1401101
66, 67, 70	
Z63, 68, 69	1400801
Z19-23, 57, 58, 65	1400501
Z60	1407601
Z61	1405401
Z73	1404301
Z18	1400601
Z7	1410001
Z26, 59, 71, 72	1404501
Z74	1408401
Z13, 14, 53, 55, 62	1406201
Z8	1405801
Z11, 15, 16, 24, 25	1406401
Z5	1406601
Z6	1408901
Z1-4	1403001
Z51, Z12	1409001
Z64	5602602
M1	7210501
R340	1000901
R341	1000911
R223, 230, 252, 258, 301, 333, 338, 350	1000915
R70, 156, 216, 226, 255, 282, 299, 325, 343, 397	5706802
R52-56, 60	5700703
R376, 377, 382	5706801
C132	1100607
C30	1100610
C105	1100611
C1, 2, 3, 8, 43-49, 117, 120, 121, 130, 131, 134, 135	1100612
C125	1100608
C136	1100614
J22, 23, 31	2106101
J15	2101302
P40	2203404
S1	1902401

1N34A

1N4148

2N3904

2N3906

4125

2N4392

698-3-R10K-D

LM1458

LM301AN

CA3086

TL081

CA339E

CD4001AE

CD4011BE

CD4012BE

CD4016AE

CD4023

CD4053BE

CD4069UBE

LM4558

SN74LS04

SN74LS26

SN74174

TL082

4075

DIODE GE

DIODE SIGNAL

DIODE SIGNAL LOW LEAKAGE FD333

DIODE LIGHT EMITTING RED

DIODE LIGHT EMITTING GREEN

TSTR NPN GP

TSTR PNP GP

TSTR PNP GP

TSTR N CHANNEL

TSTR ASSY NPN/PNP

IC RES NETWORK 16P 10K

IC OP AMP

IC OP AMP

IC TSTR ARRAY

IC OP AMP FET

IC QUAD COMP

IC GATE 4 X 2I NOR

IC GATE 4 X 2I NAND

IC GATE 2 X 4I NAND

IC QUAD BILAT SWITCH

IC GATE 3 X 3I NAND

IC TRIPLE 2 CHANNEL MUX

IC HEX INVERTER

IC OP AMP DUAL

IC HEX INVERTER

IC GATE 4 X 2I NAN HI VOLT

IC FF HEX TYPE D

IC OP AMP DUAL FET

IC OP AMP QUAD NORTON

PC BD ASSY VCF

ROT ROT TRIM 100 OHM 1/4W 30%

POT ROT TRIM 25K 1/4W 30%

POT RDT TRIM 100K 1/4W 30%

POT SLIDE LIN 100K 1/4W 30%

POT SLIDE LIN 100K 1/3W 30%

POT SLIDE AUD 1M 1/4W 30%

CAP TANT .47UF 35V 20%

CAP TANT 1.5UF 35V 10%

CAP TANT 3.3UF 35V 10%

CAP TANT 10UF 35V 20%

CAP TANT 1UF 35V 10%

CAP TANT .1UF 35V 20%

SOCKET DUAL IN LINE 16P RT ANGLE

SOCKET DUAL IN LINE 16P

RIBBON CABLE 16P 9"

SWITCH SLIDE DPOT

TOUCH SENSOR SWITCH BOARD

R1	1000915
S1, 2	1900601

POT ROT TRIM 100K 1/4W 30%

SWITCH SLIDE DP3T

MICROCOMPUTER BOARD

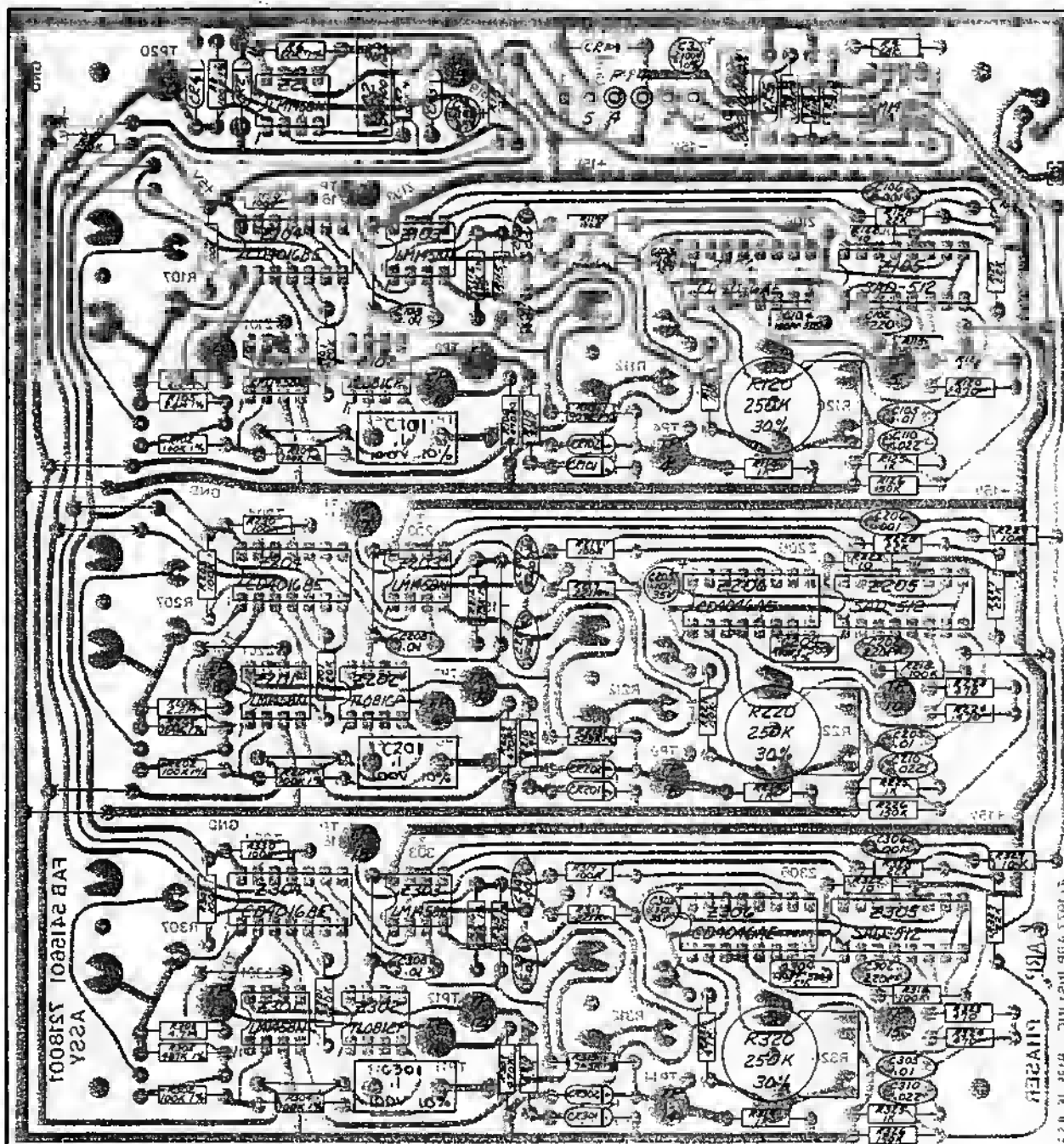
CR17-20, 29, 30, 32-34	1200301	1N4148	DIODE SIGNAL
Q1	1303001	2N3906	TSTR PNP GP
Q2	1301301	2N4392	TSTR N CHAN
CV1	2600301	_____	CRYSTAL 6MHZ
Z1	1409901	8748	IC SINGLE COMP 8-BIT
Z2, 3	1409401	8243	IC INPUT/OUTPUT EXPANDER
Z7	1409301	5101	IC STATIC CMOS RAM
Z8, 9, 15	1406601	SN74LS04	IC HEX INVERTER
Z4, 14	1408001	SN74LS145	IC BCD-DEC DECDER/DRIVER
Z5, 6	1409101	SN74LS175	IC QUAD D FLIP FLOP
Z10-13	1407101	SN74LS368	IC HEX INVERTER 3 STATE BUFFER
Z19, 20	1408901	SN74LS26	IC QUAD NAND GATE DC
Z21	1409501	CD4052BE	IC DUAL 4 CHAN MUX
Z27	1401101	LM1458	IC OP AMP DUAL
Z22, 23	1409001	TL082	IC OP AMP DUAL FET
Z29	1406002	_____	IC RES NETWORK 8P 22K
Z16	1409701	7523	IC 8 BIT CMOS DAC
Z26	1400801	LM301AN	IC OP AMP
C4, 6	1100609	_____	CAP TANT 1UF 35V 20%
C1, 2, 3	1100612	_____	CAP TANT 10UF 35V 20%
P12	2203404	_____	RIBBDN CABLE 16P 24"
	2102703	_____	SOCKET DUAL IN LINE 16P
	2102704	_____	SOCKET DUAL IN LINE 22P
	2102705	_____	SOCKET DUAL IN LINE 24P
	2102706	_____	SOCKET DUAL IN LINE 40P
	2504501	_____	BATTERY HOLDER

POWER SUPPLY

Z3	1401301	723DC	IC VOLTAGE REGULATDR
Z4	1400801	LM301AN	IC OP AMP
CR1, 2	1201701	_____	DIDDE RECT 50V 6A
CR3-9	1200201	1N4001	DIDDE RECT 50V 1A
Q3	1303001	2N3906	TSTR PNP GP
R16	1000915	_____	POT ROT TRIM 100K 1/4W 30%
C1	1101502	_____	CAP ELECT 10,000UF 16V
C2, 3	1101301	_____	CAP ELECT 1000UF 50V 75-10%
C19	1101702	_____	CAP ELECT 250UF 50V 50-10%
C12-15	1100612	_____	CAP TANT 10UF 35V 20%
C16	1100609	_____	CAP TANT 1UF 35V 20%
Z1, 2	1407401	7805	IC +5V REGULATOR
Q1	1305301	110	TSTR DARL NPN
Q2	1305401	115	TSTR DARL PNP
S1	1903501	_____	SWITCH DPDT 115V/230V
T1	5706601	_____	TRANSFORMER 5 VDLT
T2	5704401	_____	TRANSFORMER
F1, 2	1700404	_____	FUSE PIGTAIL SLO-BLO 1/2A 250V

MISCELLANEOUS

R1	1000915	_____	POT ROT TRIM 100K 1/4W 30%
S1, 2	1900601	_____	SWITCH SLIDE DP3T
	7525101	_____	AC RECP
	5207904	_____	RT ENDBLOCK
	5207903	_____	LT ENDBLOCK
	2101601	_____	DIODE LIGHT EMITTING RED
	7500301	_____	SWITCH ASSY 11"



NOTES:

1) UNLESS OTHERWISE SPECIFIED:

RESISTOR VALUES ARE IN OHMS, 1/4W, 5%

CAPACITOR VALUES ARE IN μF , 50V, 20% (PF=PICOFARADS)

DIODES ARE 1N4148

ARP INSTRUMENTS, INC.

ASSEMBLY, PHASER BOARD
QUADRA, Model 2460

